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*The Bonanas Flower
in full proportion*

*The Fruit of the
Bonanas in Proportion.*

*The Flower, fruit,
& plant, of the
Bonanas.*

*The Triangular
Torch Thistle.*



T H E
CURIOUS and PROFITABLE
GARDENER:
B Y
JOHN COWELL,
Of HOXTON.

C O N T A I N I N G

- I. The most useful Experiments for Improving Land by *Grain* and *Seeds*.
- II. Curious Directions for Cultivating the choicest Fruits of the *East* and *West-Indies* at a small Expence.
- III. Extraordinary Remarks concerning the Raising of Flowers from *Seed*.
- IV. Particular Observations and Rules for the Management of Dwarf Fruit-Trees, Wall-Trees, Espaliers, and Standards; with a new Method of rendering them more Ornamental and Profitable than is commonly practis'd.

To which is added,

An exact DESCRIPTION of the Great *American ALOE*, its Manner of Blossoming, and Uses; together with the Culture of that, and many other rare Exotic Plants; with an Account of the most beautiful Kinds of TORCH-THISTLES, and their Flowers, &c. Also the History of the GLASTENBURY-THORN, and the peculiar Qualifications of that wonderful Plant.

Adorn'd with CURIOUS FIGURES.

L O N D O N:

Printed for WEAVER BICKERTON, in *Devereux-Court*, near the *Middle-Temple*; and RICHARD MONTAGU, at the Post-Office, the Corner of Great *Queen-Street*, near *Drury Lane*. M.DCC.XXX.





T O T H E
Lady *WALPOLE*,

CONSORT to the Right Honourable

Sir ROBERT WALPOLE.

M A D A M,



THE Extraordinary Productions of Your Ladyship's Gardens, leads me to address these Papers to Your Honour; wherein, I hope, you will find many Observations tending to the Improvement of our Fields and Gardens, which have not yet reach'd the Publick.

As

As Gardening has been my Study above Thirty Years, I have endeavour'd to bring that Art to as great Perfection as possibly I could; and since my Labours that way have met with the Favour of the Curious Part of Mankind, it is my greatest Ambition to publish them under Your Honour's Patronage.

I am,

MADAM,

With the greatest Respect,

Your Ladyship's

Most Devoted

Humble Servant,

(JOHN COWELL.



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T H E

C U R I O U S and P R O F I T A B L E

G A R D E N E R.

P A R T I.

C H A P. I.

*Containing the Names and Characters
of all the known Soils in England,
and their Improvement by Grain,
Seeds, and Plants.*

TH E Improvement of Land is of that high Importance to the People of *Great Britain*, that I am persuaded the Observations I have made in that way, by Grain, Seeds, and Plants, will be acceptable to the Lovers of Farming; because where Manure cannot be conveniently had, I can always make the Land Valuable by the Method I propose, be it ever so barren. I shall therefore examine the several Soils separately, from the most barren Sand to the stiffest Clay, and appoint such Plants for each Soil, as will render it profitable.

Part I.

[A]

I. SAND

I. SAND is either *White, Yellow, or Black.*

White Sand is thought good for nothing, but Firr-Trees and Pine-Trees thrive very well in it. This Soil may be mended by any sort of stiff Land laid upon it.

Yellow Sand is more rich, and will bear good Buck-Wheat, and is improved by laying the Haulm of the Buck-Wheat or *French-Wheat*, well rotted, upon the Ground; and then sow Turnips, and after them Pease: this is also good for Carrots.

Yellow Sand is commonly more loamy than the former, and is excellent good for Potatoes, if it does not lie too wet; and if it is not over-wet, will bring good Crops of Liquorice, which are very profitable: So likewise will this Soil bring a good Crop of Madder, whose Root is of great worth for its service in dying, tho' now little known in our *English* Farms: It is excellent for Turnips, and then will bear good Corn. We may lay such Ground down also with Lucern or Medick Clover of the largest sort, if it should even lie a little moist; or the white flowering Clover will do well if it lies wet. But where this happens to be cold by Springs, open small Cutts with the Spade to drain off the Water; and with the White Clover, either one way or other, sow Ray-Grass, which will make a lasting and rich Crop.

Crop. Upon this, if it is not over-wet, Hazel Coppices may be raised with good advantage. But if very wet, and on such a Level as it cannot well be drained, set Alders, or Arbeles, or Sallows, which will soon pay good Rent : Or if indifferently wet, you may sow Wold or Weld upon it, or Teazels, if you live near a Place where the Woollen Manufacture is encouraged. Drain it with hollow Ditching, and 'twill be good for Corn.

Black Sand : What I mean by this Earth, is such as we frequently find in Heaths, which is very light, and *seeming Sand*, but mix'd with many Particles of Vegetables, rotted and disposed like Earth ; such we find also in the Fenny Countries. If such black Sand happen to lie dry, it is excellent for Saffron, and to sow the *French* Berries upon for the Dyers use ; both which would turn to good account, as well as Liquorice or Madder. But if it be black Sandy Soil, very much annoy'd with Waters, plant it with Reed or Oziers ; or if Springs invade it too much, make Ponds for Fish, and raise the rest of the Ground. And if the Ground is only subject to be moist and wet, and fresh turned up, sow Cole-Seed, which turns to good Advantage ; and it will then bring good *Poland* Oats. This Soil is an excellent Manure for Clay Ground, or Gravelly Soil ; all these Sands are generally deep.

Of Gravel.

G *Ravelly Soil*, such as contains a sharp Sand in it, is none of the best, whether it is of a yellow or white Colour ; it is subject commonly to bear unprofitable Herbs, but chiefly Broom. If this lie dry, then one Crop it will bear to Advantage is *French Furze*, in Countries especially where Firing is scarce ; or else *Spanish Broom*, which makes the best Faggots for mending of Roads, being the toughest of any Wood. The young Shoots make the strongest Bands for binding any thing ; and the Plants being cut down to a few Inches of the Roots, may be interwove in dry Fences, which last longer than any other. The Flower of this Plant is very beautiful, and of a fine Scent, and is very useful to Bees.

Gravelly Soil, again, being fresh turn'd up, will bear good Pease, and very sweet Turnips, but small in their Roots, and good for Sheep. This Ground is also good for Flax, which will grow very fine upon it ; and then it will be fit to sow Buck-Wheat upon, and black Oats may come after the Buck-Wheat. It is likewise good for Saffron.

If Gravel be wet, and subject to Whins and Mole-hills, cut down the Mole-hills in *December* or *January* with a Breast-Plough or Paring-Plough, and spread them abroad ;
and

and you may, when it has lain till *March*, plow the whole, and sow Horse-Beans, and at the same time White Clover and Rye-Grass. The Black, Heathy, or Moorish Soil mend these Gravels very much ; and if afterwards you would sow Corn upon them, the Land must be hollow ditch'd, or drain'd other ways.

This Land will bear good Teazels if they are wanted thereabouts.

The same Land being only moderately moist, will bring a Crop of Carraway-Seed to good purpose.

If it is very wet, Alders will do exceeding well in it, as well as Arbeles, and Willows or Sallows, and also the black Poplar, which in some Places are very useful.

If the same Soil has in it a sharp Sand, in which it commonly chiefly abounds, there is no better Manure than that ; for the stiffest blue Clay, or Clay of any sort, it is as good as Marle in its way.

The *Gravelly Ground* is extremely improved by St. Foin and Clover, which may be sown with Barley.

Gravelly Soil will likewise bring a good Crop of Lentils or Tills for Fodder and Seed.

The same Soil is also good for Tares or Vetches.

This Soil is excellent for Woods, or for Springs or Coppices of Ash and Hazel ; but if it be wet in some Parts, set therein Birch
and

and Sallow ; and in the more wet, Alder, Arbele, and such like. Upon the hilly parts Beech will grow.

Gravelly Soil has generally Clay under it ; if it be yellow Gravel, or if it be Gravel of a white sort, we may commonly expect a Pit of Marle, if we dig for it. So that all the sorts of Gravel commonly carry their Amenders with them ; for the mixing of them together make good Land in time, fit for the best sort of Corn.

Before I conclude my Observations on Sands and Gravels, I shall entertain my Reader with a Copy of an ingenious Letter communicated by a Gentleman of *Cambridge*, who receiv'd the Original from *Scotland*.

To Mr. Cowell, Gardener at Hoxton.

S I R,

‘ **H**earing you are about printing some of
 ‘ your *Memorandums* concerning the
 ‘ Improvement of the *East* and *West-Indian*
 ‘ Plants, as well as the Observations you
 ‘ have collected about amending the several
 ‘ sorts of Soils, I send you a Copy of a Letter
 ‘ I have just receiv'd from *Scotland*,
 ‘ touching a profitable Plant which will prosper
 ‘ well upon poor Land.

I am Yours, &c.

The

The Letter is dated from *Bargaly*, near *Dumfries*, *December* 4, 1729. and begins thus.

‘ I Have endeavour’d to improve the Plant
 ‘ the *Romans* valued so much for the
 ‘ fattening their Cattle, call’d by them *Ci-*
 ‘ *tisus*: Of all the Species of that Plant, that
 ‘ call’d the *Bastard Sena* is most acceptable
 ‘ to all sorts of Cattle, both Horse, Neat,
 ‘ Sheep, Hares, Rabbits, &c. who eat it with
 ‘ very much delight. It is a Shrub that is a
 ‘ great Encreaser by Suckers, and will over-
 ‘ run a whole Acre planted at two Foot and
 ‘ a half distance, in a little time; and when
 ‘ at ten or twelve Inches high, may be mown
 ‘ to great advantage thrice in the Year: and
 ‘ I never doubt but it will subsist for twenty
 ‘ or thirty Years, without being plow’d up.
 ‘ It takes best planted in the Stubble-Field
 ‘ after two or three Crops of Grain hath
 ‘ been taken off it; nor doth it less succeed
 ‘ in a poor Sand or Gravelly Soil, provided
 ‘ they be dry, even where other kinds of
 ‘ Grass will not thrive.

‘ Nor is there any red *Dutch* Clover or
 ‘ St. Foine sweeter to the taste; and ’tis dif-
 ‘ ficult to preserve it in the Winter from
 ‘ Hares, who make their way through
 ‘ Hedges.

‘ The Plant call’d the *Bastard Sena* be-
 ‘ ing cut small, and given among Oats to
 ‘ Horses,

‘ Horfes, makes their Skin exceeding sleek,
 ‘ and ’tis a great Fatner. It’s pity our Gentry
 ‘ and Farmers had not more knowledge of
 ‘ it, or that it were not more univerfally
 ‘ improved. If Gentlemen were once got in-
 ‘ to a Stock of the Plants, they might be in-
 ‘ creas’d to what Extent they please, and of
 ‘ long duration.

‘ I lately found out one Improvement of
 ‘ Potatoes, which I thought fit to acquaint
 ‘ you with, never before put in practice,
 ‘ which may be of univerfal Ufe to Farmers,
 ‘ and even to the meaner fort of People, who
 ‘ have not the command of Dungs.

‘ The Method is thus : In *September* I
 ‘ caufe Fern to be mow’d or cut down, or
 ‘ young Furze, where Fern cannot be had, and
 ‘ lay them a Foot thick upon the top of the
 ‘ Ridge I intend to plant the Potatoes upon ;
 ‘ cover them at the bottom of the Furrow,
 ‘ where the Plow doth not come, with Virgin-
 ‘ Earth half a Foot thick all over, and fo let
 ‘ it lie till the firft or middle of *March* ;
 ‘ then dibble in the Potatoes about nine
 ‘ Inches afunder, all in Rows over the Bed.
 ‘ And when they come up, and are grown
 ‘ to the fecond Leaf, give them a gentle Co-
 ‘ vering, about an Inch in thicknefs, which
 ‘ deftroys all Weeds, and makes them very
 ‘ productive. And thefe Ridges fo managed
 ‘ next Year, being made fo fat and mellow
 ‘ with the Stalks, will bring excellent Grain
 ‘ for

' for two or three Years. Day-Labourers,
 ' that are not in a condition to procure Dungs,
 ' may by this Method have abundance of
 ' these Roots : and 'tis of great use to ordinary
 ' People when Victual is dear ; and is a great
 ' Improver of such Lands as are in the re-
 ' moteſt Parts of the Country where other
 ' Manure can't be had conveniently.

' There is likewise an Expedient I've found
 ' out for sweetning and qualifying the Air
 ' in the Green-house in hard Weather, with-
 ' out making use of Charcoal or Stoves, by
 ' chuſing a Stone about ſix Inches thick, and
 ' twenty Inches ſquare, and putting it to
 ' the Back of the Chimney-Fire till it is
 ' thoroughly hot, and taking it in a *Hand-*
 ' *Broad* or *Bachie* to the Green-house at
 ' Night, and ſetting it upon a Peſteſtal, it
 ' removes the ſharpneſs of the Air through
 ' the whole Night, makes the Greens look
 ' freſh and healthy ; and by this Method I
 ' have brought Oranges to ſuch perfection,
 ' that they were full as Juicy at the Heart as
 ' thoſe that come from abroad. Sir, you'll
 ' pardon this Freedom, being with the great-
 ' eſt Reſpect,

S I R,

Your very humble Servant,

A. Heron.

This Letter gives us a new Account of a famous Plant, and a great Improvement by it on poor Sandy and Gravelly Ground, of which sort we have great store in *Britain*, and would surely be of good use to be cultivated with us as directed; for I am inform'd by some *Scots* Gentlemen I have shew'd it to, that the Gentleman who wrote it is a Man of great Speculation and Truth. But I come now to speak of Loamy Soil, which in every shape is very productive of any thing, whether as Sandy Loam, Marle, or Strict Loam.

The Sandy Loam is one of the best Sorts of Soil for Corn we have in *England*, and indeed for any thing else, where it happens to be deep enough, as six or seven Inches staple, but it is commonly but shallow. 'Tis the admir'd Soil for Flowers, and if it is deep enough, the best nourishing Land for Carrots, Parsnips, Turnips, and such like Roots; and for Woad, the famous Plant for Dying of Blue, which makes the great Foundation of many other Colours to make them last for a long Season. The Corn-Fallows of this Land will bring good Crops of Spurrey upon them for Winter Fodder; and the best Pease of any, upon this sort of Soil. Barley, if it is set at seven Inches distance, will bring such a great Crop of Grain, that 'tis admirable; even so much, that an Acre will produce above half as much more as by the
the

the common way of sowing. It is surprising the Account we have of the vast Produce of Barley which the Reverend Dr. *Holtyar* of *Carshalton* in *Surrey* has made, by the means of having the Grain or Plants set out in the manner I have mentioned, upon his Lands in that Country. But if I can rightly remember the Story of it, which a Gentleman of great Merit gave me, it was thus; *viz.* That from one single Head of Barley being managed in the manner before related, the third Year produced enough of Corn to malt for sixteen Hogheads of strong Malt-Liquor or Beer, which was so good, that the curious Gentlemen prefer'd it before Wine; besides many Quarters of Grain that were yet saved for sowing.

I am well persuaded there is but little difference between what I relate, and what I heard of the Matter; but more than that, I find many Gentlemen of Understanding have taken the same way with Corn in several parts of *England*, and find it turn well to account in the poorest Lands.

If this Soil lies shallow, sow it with Non-such, or with Lucern Seed, and lay it down.

Marle is accounted one of the best Improvers of Lands, but not of it self to be good for any thing; yet, if People knew better what *Marle* was, they would find it upon the Surface, as well as in Pits, as it may be seen in many Places, of several Co-

lours. When 'tis yellow, some call it Loam; when 'tis white, 'tis called soft or mellow Chalk; and when 'tis blue, 'tis a blue marly Ground: but when we dig for it, 'tis all Marle. For there are Marle-Pits common of all these sorts; and every one who has seen the several Soils of our own Nation, must have seen the several sorts of Marle on the superficial part of Lands, as the staple Ground of them. Where these Soils are found, they are rich enough for any Crop, if they lie naturally on the top of the Earth, to be used when we please: But if they are dug deep in the Ground, they must have time to imbibe the Air before they are made use of; which, by the common practice of the Farmers in marling of Ground, seems to agree with my Opinion, because after the Marle is dug, 'tis broken again to fling into the Carts or Carriages; and then again at the delivery at the Field, and then at the spreading, and again at the plowing: so that the Parts are more spread and more open to receive the Air, than the same sorts which we commonly meet with upon the surface of the Lands which are plow'd and open'd to the Air perhaps but once, or twice a Year.

Memorandum, If we take Marle fresh out of the Pit, and sow the Seeds most familiar to it, they will not grow upon it; but let it remain some time in the Air to mellow, it will bring any Seed to perfection. With this notice

tice any one may know that I mean, *i.e.* Marle is a proper Soil for any Plant, when it has had Air enough to mellow it, and is deep enough to receive the Roots.

Marle, as well as any other free or open Earth, which is taken from below the Surface, as it is supposed not to have born any Crop, and has not the least been divested of any natural Power, is judged to be that which the Reverend Mr. *Laurence* calls Virgin-Earth; or as some of my curious Acquaintance construe it, such Earth may be compared well with the Character that Gentleman gives of his Virgin-Earth. Notwithstanding we find in the digging of some Wells, that the Earth which has been taken from an hundred Foot deep, has had perfect Seeds in it of several Varieties, that have grown when that Earth has been some time exposed to the Air. Which denotes that there had been Plants growing upon that Earth before; or, as it may be, the general Deluge, or something extraordinary of that kind, might, by its mighty Over-flux, have cover'd that Ground which was low before, and raised it now high enough to occasion us to dig down to it for what we may want, meaning the Water.

LOAM is a Soil like that I have mention'd before in the Article of Marle; 'tis a fat, and yet easy and open Soil when it has been
turned

turned up a while, and exposed to the Weather; and as it is generally deep, there is not known a more rich and fertile sort of Land for any thing we can put into it, which requires a deep Root or strong Nourishment. It is not so close or cold to hold Water so long, as to starve the Roots in the colder parts of the Winter; nor so free and open, as to lose its Moisture in the Heats of the Summer too quickly, as Clay would do in the first place, and Sand would do in the second.

Neither is Loam of such a hard Texture of Parts as to resist the Roots of any Plant like Clay, or receive them too soon like Sand, both which are Faults in Soils; for considering the divers sorts of Plants we must cultivate, as well the tender-rooted, as the hard-rooted, we must have light Soil for the first, and strong Soil is more proper for the last. But this being somewhat less free than the Sand, and less tenacious than the Clay, all Plants will agree well enough with it, and every sort live an easy Life therein; or make their way, like the middling Sett of People in a Nation, by slow and sure means; while the hot-headed, like Sand, are too speedily overthrown in their Attempts; and the too grave, like Clay, are never of any use till they are stirr'd up.

Where the Loam I speak of happens to lie wet, and cannot be well drain'd, it will bear good Hemp. In

In this sort of Soil, or in any other of the Loams I have mentioned, the Everlasting Pea may be sown to great Profit, as a Gentleman of *Kent* has experienc'd. It affords an excellent Fodder for Cattle, and may be cut three times in a Summer. This Soil, with the cleaning of Ponds and Ditches, will bear very good Hops; but it is certainly the Soil that requires the least help by any Manure of any other.

Of CLAY. The White, the Yellow, and the Blue.

THE White Clay is call'd in many Places soft Chalk; it has all the Qualities of the yellow Clay, except its Colour, and will bring very good Corn, by being well cultivated with the Plow, and manured, if it can be had, with black sandy or heathy Ground, or Turff dug from Fenns; or, I have heard that Fern being cut down, and well rotted, makes a good Compost for it, mix'd with Drift-Sand. But above all, if you have Woods near such Ground, take the Parings of the Wood-Soil and lay it upon such Land in the Winter, and your Land will be as much improved as with the best Dung: Likewise the Folding of Sheep upon such Land does it great service. It will, when the Corn is off, bear a good Crop of Spurry upon the Fallows. Spurry may be

had from *Flanders*; for about *Brabant*, I am inform'd by several Gentlemen, it is frequently sown for fattening of Cattle, and making their Kine give store of Milk. It is besides, by all report, a great Fatner of Poultry; and will make them lay early in the Year, and bring great store of Eggs. This Plant is call'd *Frank Spurry*, or *Franking Spurry*, from the Name which *Lobel* gives it in *Latin*, *Sagina Spergula*, which *Parkinson* englishes *Franking* or *Fattening Spurry*, which Name the *Dutch* know it by.

This Soil likewise will bring a good Crop of Tills or Lentils; and also good *Dutch* Clover and Nonfuch.

The next sort is yellow Clay, which is the most common, and very profitable, as the Gentlemen of *Hertfordshire* and *Middlesex* well know. This Soil is the best for Corn, and brings the most profitable Grass. Upon such kind of Land one ought not to sow any of the tender sort of Seeds, lest in the Winter the Soil be too cold for them. The *Poland* Oats will bring very weighty Crops; and every Plant which requires strength of Soil, will prosper in this exceedingly. *Woad*, when this Ground has been open'd well by the Plow, and the Land has been help'd by some of the above Manures, will bring a valuable Crop. And this Land also is much improved by sowing of Turnips, and feeding Sheep.

In *Yorkshire*, and near *Bagshot-Heath*, some Experiments have been made, as I'm inform'd, for mending yellow Clay-Ground, by a gritty Sand that was in the Neighbourhood. One Improvement of this sort was made between two Gentlemen, Neighbours; one had a Field of strong Clay, which brought him very little Profit; and the other a Field adjoining to it of a gritty Sand, which was so poor, that he hardly made Four Pence an Acre of it: till the Gentlemen mutually agreeing to exchange Soils, Load for Load, the Sand was carry'd to mix with the Clay, and the Clay likewise to lay on the sandy Land; and in a plowing or two, being set with Beans, they bore the first Year a very good Crop; and were then plow'd again for Turnips, and fed with Sheep; so that the Spring following being plow'd, were sow'd with Bullamond, which is Grey Pease and Barley together, and brought a great Crop. Since that, it has born very good Wheat, and each Field is reckon'd worth Forty Shillings an Acre.

Upon this sort of Clay, if the Ground is dry, Ash, Chesnutt, and Oaks prosper exceedingly, if we sow them on the spot; and upon the white Clay above-mention'd, Wallnuts and Beech will grow prosperously.

The next Soil I have to mention, is Blue Clay, which is the very worst Soil of all, being so stubborn, that one must have a Team

of good strength to work a Plow in it. The best Manure for this is sharp Drift-Sand and Heath, or Fenn-Soil, or rotted Fern, or such like ; for Dung would be soon lost in it.

Some Gentlemen tell me, that to bring this Soil the soonest to Tilt, or fit for Cropping, is at the first plowing, which should be about *March* or *April*, as the Weather will permit ; and then not to let the Plow turn up above two, or at most three Inches deep of the Land ; and when that begins to dry, give it another plowing an Inch or two deeper, which will mix the Manure laid upon it before the first plowing, and make an extraordinary reduction of the stiffness of the Clay : so that about *July* one may sow it with Turnips for Winter Feed, and afterwards will produce Beans, Oats, &c.

Some Gentlemen commend the planting such Soil with Pear-Stocks, to let them grow in the manner of Coppice-Wood ; and prosper so well in it, that one may cut them every five or six Years to serve for Stakes, Fences, and several Implements required about a Farm, besides Firing when it is thorough dry.

There remains now no more to say of Soils, but to mention the dry Chalk, which seldom has a Staple upon it above two Inches thick, so that it can hardly be brought to bear any thing better than short Grass for the Feed of Sheep. But this we may
say

say of the Grass produced on such Soil, that 'tis sweet and very nourishing; and the Cows which can feed upon it, have more Cream in their Milk than the Cows that feed on long Grass. Such a Place is good for a Warren, and will keep the Rabbits in good health, and make them very fat.

Nonfuch Grass will bring the best Crop upon such Soil, and by laying on Manure every Year, the Staple will rise gradually by that means, and by the Increase of Roots, so that in process of time it will be deep enough to bring Corn.

This Chalk is likewise good to burn for Lime, which is a profitable Commodity in every Country.

The yellow Clay will make good Brick, which again is very profitable, near great Towns especially.

There has been Instances about *London*, of a Hundred and fifty Pounds, and more, given by Brick-makers, to take away three Foot deep of Clay from an Acre of Ground; and they were also obliged, when they had done, to bring in so many Load of Dung, or proper Manure, as would bring the remaining Ground into good order for Cropping.

On the other hand, these Lands, when the Brick-Earth is carry'd off to be burnt, will Lett to build on, or will Lett to lay Rubbish or Cleanings of Streets in, which will

greatly enrich the Ground ; and the People that rent such Land for such use, will sell you, upon the spot, as many Load of the richest Lay-fall Soil as you please, for Sixpence a Load ; so that after a certain Term, you may make your Ground as rich as you please.

Gravel, besides what I have said of it, is extremely useful for mending of Roads and Causeways, and where Veins of it are found, is of good account to the Owner. For tho' perhaps he may allow it to be dug at a Penny or Two-pence a Load at the Pit, for the use of the Roads about him, yet, as the Roads are mended by it, it will save considerably to him in the Wear and Tear of his Cattle and Carriages ; nay, four Horses in good Road, will draw as much as eight in a bad one, and this must be consider'd as an Advantage to him, which is as good as so much Money in his Pocket. And if he has a large Estate thereabouts, the Farmers will be encouraged to bring more Manure upon his Land, and may make two Returns for one ; and so they will prosper better, and his Estate become more valuable.

In Wood-Lands, where Roads are commonly the worst, because of the continual Shade of the Trees, which prevents the Sun from drying up the Wet that falls, and likewise the frequent passing of heavy Carriages contributes to make them deep, it
would

would be well worth while to allow a certain part of each Coppice to be bavin'd or faggotted up to mend the Roads with; which will not only help the Cattle in their Draught, but ease the Carriages from great strains and damage, and also save hurt to those who pass along them, and perhaps save some Lives; for in such bad Roads as I speak of, we too often hear of People smother'd in the Mud, and the Holes which are hidden by it.

What I have here mention'd, with regard to the Improvement of Soils, is every day more and more confirm'd by my Acquaintance who practise it: But I shall now proceed to speak of the *East* and *West-Indian* Fruits, which may be brought to perfection in our Stoves and Green-Houses.



C H A P. II.

Of the Bonana or Plantain of Surinam, or Musa Arbor of Parkinson; with others the most Extraordinary and Admirable Fruits, &c.

THIS Plant brings not only one of the most delicious Fruits, but one of the most delightful Flowers of all the *West-Indian* Rarities, as will appear in the Draught annex'd.

annex'd. It grows pretty tall, so that few of our Stoves or hot Glass-Cases are big enough to hold it, especially when it shoots for Fruit. Wherefore it will be necessary to advise those Gentlemen who would delight themselves in cultivating the fine *Indian* Fruits, to build their Stoves accordingly : For this Plant alone will grow in its Fruit-bearing State, to be about twelve or fourteen Feet high ; but then it will well reward the Labours of its Nurse, for at once it will bear several hundred Fruit of an exquisite Flavour.

It is indisputably one of the most beautiful Plants in the World ; the Plant rises to the Height of eight Feet, or thereabouts, with a Stem as thick as one's Arm, or rather bigger. This Stem is not Woody, but of a soft Substance composed of Leaves, or the parts of the Leaves of the Plant, like that of the Date-Tree. The Leaves are of a fresh green on the top of the Plant, and spread themselves to a great compass, being made almost of the shape of our common Plantain, but about four or five Feet long each, and sometimes two Feet broad.

From the Center of the Leaves comes forth a strong and long Flower-Stalk, which rises five or six Feet high, and jointed in several Divisions ; at each Joint putting out a Leaf-Case, which cover'd at first the Buds of the Blossoms that surrounded the Stem at the
said

said Knot or Joint. These Leaves or Flower-Cases are broad and large, of a Red Colour when they are open on the upper Side, and Blue underneath. The Flowers which stand round the Stem at every Joint are White, and somewhat shaped like those of the Tuberoſe, as one may obſerve in *Marian's Account of the Plants of Surinam*. When theſe Flowers ſet for Fruit, the Leaf-Cases fall off, and the next Story of Flowers above, open themſelves like the former; the young Fruit of the lower Range ſoon turning down, and perfecting themſelves in Fruit of the ſhape of ſmooth Cucumbers, but of very pleaſant Taſte; which when they are ripe, are of a yellow Colour. So the whole Flower-Stem is diſpoſed with Fruit to the very top.

In the Fruit, I find by my Correſpondents, there is no Seed, no more than in the Pine-Apple.

Thoſe Fruit which are gather'd by our Sailors abroad, to take to Sea with them, are always cut green, with the Stalk to them, which ripen by hanging up in their Cabins; and ſoon after their ripening, rot.

They eat them in the Country as a delicious Fruit, paring off the outward Skin, and then they emit a fine perfumed Flavour. And though they are not too ſenſibly ſweet at firſt, yet are of a moſt refreshing Taſte. The People of the *West-Indies* have likewiſe

a Method of Preserving them in Sugar like other Fruit.

This Plant, which frequently grows in the hotter Parts of *America*, brings its Blossoms and Fruit two or three times in a Year, and increases it self by Suckers, which come plentifully about the Root of the Mother-Plant: The Fruit, some say, is much more pleasant than that of the Pine-Apple.

I hope this may invite those Gentlemen who have Dealings in *Jamaica*, and other Parts of the *American* warm Countries, to bring over, as occasion may offer, some of these Plants. Which I the rather believe they will do, since many Noblemen and Gentlemen with us have good Conveniencies for their keeping. And I shall be grateful to any who will furnish me with that Curiosity, as the House I have built for my Aloe is of a sufficient Height to bring the *Bonana* or Plantain to perfection, as well as the Mango or the Papa-Trees; which are likewise excellently esteemed for their Fruits, and make tall Plants.

The Culture of the *Bonana* or Plantain, (for they are both one sort of Plant) must be in such a manner as we treat the *Ananas* or Pine-Apple; that is, they must have a continued Heat in their Stove during the Winter, by Fire; and should have the Assistance of a good Bed of Tanners Bark to plunge their Pots in, during the Summer.

I must observe in this place, that when we propose to keep these like Plants in the Winter, to be strong and vigorous, so as to bear good Fruit the Year following, we must not stifle them by too much heat, or too little room: For however they require Heat, they at the same time must have warm Air in a larger share than what many have allow'd. And that Air too must be often refresh'd; for by the help of a good quantity of Air, provided it be fresh and warm, equal with that in the Climate they come from, the Plants are well nourish'd, and will bring large Fruit. Whereas, if Plants are too much confin'd, the Air will grow hot and dry; which cannot feed a Plant that always chuses an Air that is not devoid of its Moisture. For the Philosophers are agreed, that all Plants imbibe Moisture by their Bark and Leaves, as well as their Fruits; which being kept in a dry, hot Place, will shrivel or shrink up: While, on the other hand, if they are laid in a Cellar or moist Place, they will keep full and plump. So much we know of the use Air is of to Plants; and, as another Instance, we find that Orange-Trees which are brought from *Genova* without Earth, will remain six Months in a Cellar alive, enough to grow and shoot very well when they come to be put into the Earth. But if you keep them in a dry hot Room for a Month, as some have done, they will not grow at

all. So, I say, every Plant should have its proportion of Air to prosper.

With regard to the *Bonanas*, they should have in the Summer Season the open Air of the House every favourable Day in *May*, till Sun-sett. And in *June* and *July*, if the Winds are not turbulent, the Glasses should be open from Eight in the Morning till Eight at Night, that they might have some Benefit from the warm Air and Dews. They might in these two Months be set out; but sometimes such high Winds and Storms happen at that Season, as would destroy them; therefore 'tis hazardous to trust them abroad. The Earth for them should be light, and in the hotter Season they will bear frequent watering, but in the Winter require little. Where Plants of so tender a nature, and of so high a growth, are not too Juicy or Succulent, and are aiming at Fruit-bearing in this Season, which is now and then refresh'd with soft Rains, one should bring them out of the House to receive such Nourishment as the Heavens dispense; therefore I think it necessary to set their Cases or Tubs upon Wheels, as I have done my Aloe, that one may move them out and in at pleasure: For the Leaves and the whole Plant will be refresh'd by such Moisture, and by that means the Fruit will be better nourish'd.

This Fruit of the *Bonana* or Plantain, is said by the curious Physicians to be very whole.

wholesome, and of great Service to those who are troubled with Colds or Catarrhs; it is Diuretic. They are excellent baked, and make one of the finest Sweetmeats known to the Gentlemen who frequent the Places where they grow. I proceed now to speak of the Pine-Apple, and *Penguin* or Wild Pine.

Of the Ananas or Pine-Apple, and the Penguin or Shrub Pine-Apple.

THIS Plant, that is, the Pine-Apple, is a Fruit of that delicacy of Taste, that it is cultivated not only all over the *West*, but the *East-Indies*, and is one of the high Favourites of the Curious in Fruits. It was brought from *Surinam* and *Curasao* to *Holland*, where it was first cultivated in *Europe*, and brought to Perfection by a Gentleman at *Leyden*, who rais'd in his Garden several hundred ripe Fruits of a good Size. From whom we first received Instruction to cultivate them in *England*, together with many Plants which he sent to Sir *Matthew Decker's* Garden at *Richmond* in *Surrey*; where they were so extremely well manag'd, that all Gentlemen who had eat of them abroad, allow'd them to be as good and as large as they found in the *West-Indies*.

This soon encourag'd many of our Nobility and Gentry to build Stoves and Glass-Cases for the Culture of the Pine-Apple; and

they are now found in almost every curious Garden.

When I say the first that were cultivated in *England* were in Sir *Matthew Decker's* Gardens at *Richmond*, I mean, the first that were cultivated with Success, were in those Gardens; for long before we had Plants of them brought to us, but had not before that time Conveniencies for bringing them to Fruit, or even of keeping the Plants alive.

We have now two Sorts of Pine-Apples with us; one which brings a large Crown of Leaves on the top of the Fruit; and another which brings a very long and large Fruit, with a small Tuft of Leaves on the Head on't.

The first Sort has its Leaves of a yellowish green Colour on the upper Side, and greyish underneath, but brings its Fruit of a good Flavour, though so small as seldom to be above three or four Inches in length. When the Fruit is ripe, it is knobbed like the Cone of the Pine-tree, but soft in its Flesh, and of a golden Colour, perfuming the Air about it. This Kind is the most subject to bear Fruit; even the Crown of Leaves taken from the Fruit one Year, will bear Fruit the Year following.

The other sort of Pine-Apple has its Leaves more substantial than the former, and notched with small Prickles on the Edges like
Aloe

Aloe-Leaves. These are of a darkish Green on the upper side, and pale on the under side ; through these Leaves, length-ways, run Veins of a dark red Colour ; and even the Scales of the Fruit partake of the same.

The Fruit of this is pyramidal, and often measures ten or twelve Inches in length, and is accounted to be the best sort for eating ; and therefore is called the King or Queen-Pine.

The Culture of these is the same, *i. e.* they are propagated from Suckers, which put out every Year from the Root ; and also are rais'd and encreas'd from the Crown of the Fruits being planted.

The Soil for them should be light, rich, and well sifted ; in this we may plant the Off-sets when we see them large, any time during the Summer. And we may likewise plant the Crowns at any time when the Fruit ripens.

There is yet one Way of increasing these Plants, which I observ'd at a curious Garden at *Mitcham* in *Surrey*, belonging to *Charles Dubois Esq* ; which I never saw elsewhere ; *viz.* That Gentleman let several Fruit stand on the Plants a long time after they were ripe, and almost from every Knob of the Fruit there push'd out a young Plant ; so that I believe there were Thirty upon one Head.

But

But to keep these Plants in perfection, and promote their Fruiting, we must plunge the Pots, from the middle of *February*, in a strong Bed made of Tanners Bark, and keep them glass'd till the middle of *September*, giving them Air by tilting up the Glasses in the hotter part of the Day, and allowing them frequent moderate Waterings, especially when the Fruit is set.

In *September* we must set them in their Stove for Winter, not keeping them too close, not letting any Water drop upon their Leaves, or into the Heart of the Plants, for they are subject to rot. And when they are once in the House, a constant Fire must then be kept, as equal as can be, which may be regulated by a Thermometer.

I observ'd before in the Culture of the *Bonana*, the way to make that Plant strong, and bear good Fruit, is to give it a warm moist Air, rather than a hot dry Air; and to give it as much as its Tenderness will admit of, to keep it moderately growing; and not to force its growth too much, for that will make it weak. Just so should we deal with the Pine-Apples, and not to keep them too close, as many do, making them spend themselves in Leaf, so that their Fruit comes small, and of little Value.

As for the Manner of building such Stoves, they are well enough known, and there are many Examples of them; and I find that
the

the larger the Stoves are, the Fruit are generally larger. But I think, for the future, when any others are built, one would raise one part in the middle of each Stove ten or twelve Feet higher than the rest, for the taller *Indian* Fruit-Trees, that they may bring their Fruit in perfection without being cropt: But the *Bonana* or Plantain-Tree cannot admit of cutting down, as its Leaves only are growing on the top of the Plant. Dr. *Bradley*, in his Description of a Greenhouse and Stove to be erected in one Building, seems to have contriv'd his Glass *Cupola* for such Purposes.

But now I come to speak of the *Penguin* or Wild-Pine, which some Authors call *Anana Sylvestris*.

This Plant bears Seeds, and so is to be raised that way, as I first experienc'd in *England*; having receiv'd some from the *West-Indies*, and rais'd several Plants in a hot Bed, as did some others I gave them to; so that there are now some to be found in our curious Gardens.

This Plant appears from the Seed like the Pine-Apple, with Leaves set round in the Form of an Aloe, but much more notch'd on the Edges. It is no less tender than the other sort, and must be kept in as warm Stoves, and under the same Management.

Out of the Center of this Plant rises a strong Stem, which proceeds to the height of seven or eight Foot, or more, as Authors describe it. The main Stem puts out several Branches, bearing at their ends Heads of soft tender Leaves closed round together; which are of a yellow Colour, and extraordinary pleasant to the Smell. From whence proceed Spikes resembling those of the Reed, but much thicker, and much more beautiful, which carry the scent of Cedar. From the Branches hang down the Fruit call'd the *Wild-Pine*, or by the People of *Brazil*, *Ananas Bravas*, which are somewhat shaped like the Fruit of the former kind, about the bigness of a Melon, and of a beautiful red Colour. The Fruit, when ripe, has a pleasant Tartness in it, agreeable to quench Thirst, and recreating to those that eat of it.

I am assured by the Gentleman who brought the Seeds of this Plant to me from the *West-Indies*, that the following Virtues, ascribed to the Fruit of this Plant, are certain, which from his own Account I set down. First, That about a Quarter of a Pint of the Juice of the Fruit, taken in a Morning with a little Sugar, is an immediate Remedy against the Heat of the Liver, or any Pain of the Back proceeding from Gravel or the Stone; and also is a certain Remedy for Ulcerated Kidneys; or where the Urine is foul and purulent, or the *Penis* has any Excoriations,

tions, it certainly cures in three times taking. In a word, the Beauty and Agreeableness of the Plant, as well as the extraordinary Use made of it, will not, I believe, contribute a little to the Culture of it in our Stoves ; as, I suppose, every one who knows its Perfections, will be desirous of Cultivating it.

It is supposed by some of my Acquaintance, that the Heads, which are like those of the Reed, as above-mention'd, serve as Male-Blossoms to the Plant ; and that the Fruit which appear on other parts, come from distinct Female-Blossoms. But I hope to be able to shew this in a little while in my own Garden.

Of the Papa-Tree of the West-Indies.

THIS Tree brings us one of the most extraordinary *West-Indian* Fruits, of a good Substance, and very pleasant to the Taste, as well as beautiful to the Sight. We have had the Plant raised in *England* many Years since, when first Exotic Gardening was set on foot by the late famous Dutchess of *Beaufort*, and Dr. *Henry Compton*, Bishop of *London*. And within a few Years, since our new Stoves have been built, the Curious in the Pine-Apple way, have cultivated it from Seeds which were brought from the *West-Indies* ; of which I have rais'd several

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that I sold to good Advantage. This Tree is a very quick Grower, and will bear Fruit from the Seed in three Years, with good Management. But it is remark'd by some, that there is of this Tree both Male and Female ; for that from Seed of the same Fruit, we find Plants that bring Fruit from the Blossoms coming upon them ; and others bring Male-Blossoms, which are never follow'd by any Fruit, such as is reported with Truth of the Dates or Palms. When I mention this, 'tis with regard to the New Doctrine of the Generation of Plants, that it may be an Example for the Curious to discourse upon.

From some Seed of the *Papa*, which I gave to the Physick-Garden at *Chelsea*, were raised two Plants, one of which produced Flowers, which proved to be Female : But the other Plant which was raised there at the same time, was sold or given away to a Gentleman at *Parson's-Green*, that produced only Male-Flowers ; and so the Female Plant brought no Fruit.

However, at Mr. *Sherrard's* Garden, and at those of some other Gentlemen who had of those Seeds, there was good ripe Fruit the third Year after sowing ; which proved very delicious and full, though the Plants were hardly nine Feet high, and bearing many upon a Tree.

This Tree must be trained up in a Bark Bed, like the former *West-Indian* Fruits, and have

have the same Benefit of a like Stove in the Winter : Their Earth somewhat more loamy than that I directed for the Pine-Apple, with gentle Waterings, till the Papa-Tree grows woody, and then they may have more frequent Watering in the Summer ; but be more sparing of it in the Winter, lest they take the Mold in the young Shoots, and rot, which is the great Danger.

This Plant is well known in all our *West-Indian* Plantations, where the Heats are great, such as *Jamaica*, and other hot Places thereabouts ; from whence any Seeds or Plants of the like kind will be very acceptable, and gratefully acknowledged by me to any who shall bring them over.

Of the Guava-Tree or Shrub.

THIS Plant is common in our hotter Plantations of *America*, and brings an excellent Fruit, and bears it in plenty. The first of this that I have heard of that ripen'd its Fruit in *England*, was at *Badmington*, the Seat of his Grace the Duke of *Beaufort*, in that famous Lady's time, who began Exotic Gardening in *England*.

This Plant, in the Country where it grows, is a Shrub ; but by her Grace's fine Green-houses, grew to about sixteen Feet high, and bare several ripe Fruit at *Christmas*. The Fruit, in appearance, were like Apricots, and

of a very delicious Flavour, as I have been informed by some Gentlemen who have tasted of them. Her Grace, the Gentlemen tell me, had them brought to Table fresh from the Tree, and had some others preserved in Sugar, but I have not heard of any since, of that Fruit, that have ripen'd in our Gardens, though several have blossom'd. I believe that the Stoves where they have lately flower'd are much too small to contain Air enough for swelling the Fruit ; for all Fruit-Trees, if we force them, and do not give them a good Body of Air, will drop their Fruit, e'er the Fruit is half grown.

This Plant of the *Guava* will blossom about the third Year from Seed, if it be well managed ; that is, to raise the Seed in a Bark-Bed, giving it such treatment there the first Summer, as we usually do to the Pine-Apples, and keep it in as warm a Stove in the Winter ; but it will, after the first Year, require more Water. Such Soil as we give the Pine-Apple is proper for this.

*Of the Mangas, or Mango, or Indian
Honey-Plumb.*

THE *Mango* is esteem'd one of the choicest Fruits of the *East-Indies*, growing upon a handsome Tree, bearing Leaves almost like those of a Peach-Tree, and putting forth the Flowers on Strings, as the Bird-

Bird-Cherry does. After these follow the Fruit, each as big as a small Melon, the biggest weighing about thirty Ounces ; of a greenish yellow Colour when ripe, and blush'd with red on the Sunny-side, on a shining smooth Coat.

This Fruit, when it ripens, yields a most grateful Flavour, and is not inferior in its taste to the most delicious Fruits of the known World. It has a large Stone in it, which encloses a Kernel, from whence the Tree may be raised. It is remarkable that the Fruit of this Tree does not all ripen at the same time ; but we may see at the same Season ripe and green Fruit, and sometimes Flowers on the same Tree. This Account was brought by a Gentleman who had it from his Friend at *Ispahan*, the chief City of *Persia*, where some particular Persons have it growing. It is there call'd *Amba* and *Ambu*.

This famous Tree naturally grows about *Malabar* and *Bengal*, *Malaca*, and *Goa*, in the *East-Indies* ; so that it requires a Pine-Apple Heat to train it up with us, that is, such Bark-Beds and Stoves as are prescribed for the foregoing Plants.

About two Years ago a Gentleman brought over two Plants of this kind in good Health ; but for want of proper Stoves to keep them in, they both died the same Year. We find this Plant likewise in some of our hottest *West-Indian* Plantations, transplanted thi-

ther from the *Eastern* Parts of the World; so that we may surely get them easily from thence, for I hear 'tis generally cultivated by the Gentlemen of *Jamaica*.

When the Fruit is green, the *Indians* after having pared off the Skin, pickle it in the manner we meet with it in the Oil-shops at *London*.

When it is ripe they eat it as a choice Fruit, first taking off the Skin of the Fruit, though it is very thin, and sometimes eat it with Wine. It is also preserved as a Sweetmeat in Sugar, being gather'd just before its full ripeness. But the Merchant who tells me of this, says, that the ripe Fruit alone cannot be mended in its Taste by any Art.

There is a notable Story goes of the Mango, that the *Indians* have a way to set a Stone of this Fruit, and in half an Hour it will shoot forth Leaves, and bear Fruit. This has been a long time related as Fact by many who pretend to have seen it; and amongst the rest, Men of the first Rank, who have been there. But how it is performed, (that is) the raising of a Tree seemingly to bear Fruit in so short a space, has hitherto been only a Surprise, and not known.

The *Chaddock-Orange* of the *West-Indies* is the same with the *Pumplemus* of the *East-Indies*; but being brought first to *America* by Captain *Chaddock*, as a curious Fruit, the
People

People of that Country gave it his Name. It is much admir'd for its fine-flavour'd Juice, and the large Size and great Beauty of its Fruit. The Fruit of this Plant commonly brought to us from the *West-Indies*, is near seven Inches Diameter, or twenty-one Inches about, and sometimes larger. It is every way shaped like an Orange, and of a pale Colour like the *China-Orange*. It is plentifully stored with Juice of a delicious taste; and the Seeds of it grow well with us, if we plant them in Pots of fine Earth, and plunge the Pots in a Bark-Bed early in the Spring; that is, about the middle of *February*: but they should be sown before they are dry, for else they will run a hazard whether they come up at all. Or if they should happen to be dry before we have them, we may lay them the Night before we plant them in some of the Pulp of Oranges, and mix that Pulp with the Earth we plant them in, or lay that Pulp over the Seeds when we set them in the Pots to lie thin, and then cover the whole with fine Earth. This will bring them up strong; but much stronger will they be, if they are put in fresh from their own natural Juice.

It has been experienc'd, that the Seeds of a rotted Fruit shoot much the strongest; and 'tis very remarkable, that these Seeds, when they are grown about five or six Inches above ground, will blossom; that is, bring a
single

single Blossom upon their Head: but that is not constant, as I observed at Dr. *Monroe's* at *Greenwich*, where I saw several of the young Plants that were without Blossoms, tho' many of them blossom'd very strongly; and I doubt not might have held their Fruit, if they had had strength enough at the bottom, or could have been join'd with a stronger Plant.

This Manner of flowering so soon from the sowing of the Seed as three Months, is very extraordinary, and what is not seen in any other Plant that is not an Annual; for none of the Fruit-bearing Trees, that I know of, does the like.

The Leaf of this Plant is of an enormous Size, when it has the Encouragement of a sufficient warm Entertainment; but 'tis observable, that we have not this Plant brought to the Perfection in *England* as we could wish: for though the green Fruit will grow as big as a Man's Fist, yet it will drop off in the Winter, when it ought to swell for ripening. The reason is, because they have not the benefit of a Stove in the Winter, which they require as much as the *Bonana* or *Plantain*, or any of the *East* or *West-Indian* Fruits, and ought to have the same Encouragement all the Year about; only the Glass-Cases for these should be large, and hold a greater Quantity of Air, than those which are generally built for Pine-Apples.

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It is nevertheless certain, that the Tree will live abroad, where we set out our Orange-Trees, and set its Fruit there ; but when that is done, we must always provide for it such a Warmth, when the Fruit is set, as may keep it growing till it ripens: for if the Tree meets with any check, during the time of the growth of the Fruit, the Fruit certainly drops.

As to the rest of the Management of this Plant, as it is of quicker Growth than any other kind of Orange, it may be allowed a larger Pot or Tub. The Earth should be light, and it will bear frequent Refreshings of Water, but not a great deal at a time.

There is another sort of this Plant, call'd the *Cluster Chadock*, or *Nesegay Chadock*, which brings its Blossoms in Bunches at the Head or Top of every Shoot, to the Number of twenty, and sometimes thirty in a Bunch. This is pretty rare among us ; and for want of such Rules as are here laid down, it brings no Fruit to Perfection, or explains its Leaves to near the Size one ought to expect them: but, on the contrary, all those I have seen, bring their Leaves less than the foregoing kind, and are of a yellowish Colour. The Pots or Cases of this, as well as the other, ought to be at least one third larger than one would allow to a common Orange-Tree ; and it ought likewise to have a good share of Heat in the Winter.

Of the Dwarf Pomegranate.

THE Dwarf Pomegranate, however small the Plant is, yet the Fruit is near as big as that of the large sort, and no less pleasant to the Taste. This little Shrub is an extraordinary Bearer, and ripens its Fruit very well with us in *England*, as a Gentleman assured me, who first brought it from *France* into *England*, and from whose Plant all that we now have were raised, either from Seeds or Layers. But however it has happen'd, we find that the Management of those who have raised it from the Mother-Plant, have not brought it to bear Fruit like that which was first brought over.

The Gentleman who first brought it among us has told me several times, that the reason why the other Plants do not bear Fruit, is, because every Person in whose Custody he finds them, train them abundantly too tender; for it is common with them to put the Plants into Bark-Beds, to raise them to a large Size, or bring them forward, and that makes the Plants shoot tenderly, whether they are raised from Seeds or Layers: while, on the other hand, when we raise such Plants which come from a moderate Climate, they ought not to be forced, but suffered to grow gently, and then their Shoots will be well knit, and the Fruit will stand and ripen.

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It is observable, that this Plant will produce Blossoms when it is not above four Inches high ; but, at most, this Shrub, if it has all the advantage of Growth, does not grow above two Foot and a half at most in forty Years.

It is its Custom to bring Blossoms on the Heads of the Shoots, and they appear there when the Plant begins to bud in the Spring, so that they have time enough to set and ripen their Fruit in the Summer following : But few of the common sort attempt to blossom till the end of the Year, which make them rarely bear Fruit. However, there is something in the pruning of the common sort which I find is not generally known, and therefore shall set it down here, that my Brother Gardeners may take notice of it.

The common Pomegranate is, for the most part, clip'd or cut into some shape or fashion, if 'tis in a Pot, and then all the Ends or Points of the Summer Shoots are cut off, which should bear the Blossoms : And in the next place, those which are set against Walls, without regard to their bearing Fruit, are clip'd or cut as one would do a Phyllirea ; the Persons not thinking so much of the Flower or Fruit, as they do of the handsome Appearance of the Plant, and so dismember the Plants of their flowering Tops : But wherever you find that a Plant of the common Pomegranate has run rude against a Wall,

as sometimes happens, you will surely find it produce Flowers, tho' not to bring Fruit, because it wanted the Warmth of the Wall to forward or set the Blossoms, and to make the Fruit grow. In the next place, we observe that the same sort of Plant, when it happens to be under the Hand of one who will take the pains of laying to the Wall the Shoots of the last Summer, they commonly escape the Winter so well, as to open their Blossoms about the End of *May*, or Beginning of *June*; and then 'tis likely there will be Fruit, if the Autumn be favourable: but not of that fine Ripeness as we receive them from *France*, or as we find on the Dwarf Sort now with us; as some Noblemen and Gentlemen intimate, that have seen and tasted of those growing on the first Plant brought over of the Dwarf Kind.

We have had, however, Instances of the common Pomegranate ripening in *England* against Walls, when the Winter before has been so mild, that it did not kill the Ends of the Shoots, and the Spring and Summer has been favourable afterwards; or that they have been guarded with Mats in severe Seasons, as at Sir *Gregory Page's* at *Greenwich*, and at *Kue-Green*. If the Pruning therefore, and a little Care in the Winter be minded, it is likely even these may be brought to bear good Fruit: But the Dwarf Sort is certain, if you shelter it only in a common

mon Green-House, and give it Air enough ; or, in a word, the same Care you would give an Orange-Tree ; or even less than that, for 'tis as hardy as a Myrtle.

The Dwarf Kind begins to blossom, if it be well managed, in *April* ; but if it be too warm kept, will shew its Flowers in *March*, but then they will be weak, and perhaps never set, or drop off : But the *April* Flowers will stand, especially if they set while they are abroad, which should be about the middle of *April*, under any common Penthouse : they will then require frequent Refreshings of Water ; and their Earth must be of such a Texture as Sandy Loam, which is the best for them. A Sandy Loam fresh, without any Dung, is the best ; and they should be earthed every Spring, without disturbing the Roots, and then you will see whether they require new potting, for a Pot may contain too small a Quantity of Earth to support the Fruit or Blossom ; but you will know when a larger Pot is wanting, when you see the Roots many, and close to the Edges of the Pot.

Surely nothing can be more dazling, than to see a little Tree of this sort, not above a foot high, cover'd with its fine Crimson Blossoms ; or can be more pleasant, than to have such a Dwarf brought to Table with half a Dozen ripe Fruit upon it.

C H A P. III.

Curious Remarks relating to Flowers.

BEFORE I speak of the Management of the choice Sorts of Flowers, such as Tulips, Ranuncula's, &c. I think it necessary to insert the following Letter I receiv'd from a Curious Gentleman, concerning the naming of Flowers, whereby not only they may have pompous Names, as they generally now receive; but the same Names shall likewise express the several Colours in every Flower: so that, without having them painted, one may know by each Name every Colour which is remarkable in each Flower, and which Colour abounds in it.

To Mr. Cowell, Gardener, at Hoxton.

Mr. Cowell,

I Have been a Lover of Flowers above twenty Years, the greatest Part of which Time I have lived in *France* and *Flanders*: I am however of *English* Birth, and shall endeavour to explain to you the several Methods we have abroad of naming our Choice Flowers, so that one may know, by seeing any of the pompous Names we give them, what Colours they are

‘ are of: but ’tis not the way in *England*, I
 ‘ find, to do so; for they give the Flowers
 ‘ Names at random, without considering
 ‘ that every Flower’s Name might carry
 ‘ with it a Mark of its Colours.

‘ Abroad our very Curious Flowerists have
 ‘ Lists of all the great Personages, Castles,
 ‘ and Cities by them; and when a good
 ‘ Flower happens to come in their Garden,
 ‘ they give it a Name from them that shall
 ‘ in the two first Letters signify what Co-
 ‘ lours it is mark’d with: and so when they
 ‘ read their Catalogues over, every Name
 ‘ is, as it were, a Painting of the Flower.
 ‘ The Method is, to make a Table as fol-
 ‘ lows, *viz.*

For White, put the Letter	<i>W</i> —or <i>A</i> for Argent,
For Yellow put	— <i>Y.</i>
For Orange	— — <i>O.</i>
For Red	— — — <i>R.</i>
For Crimson	— — — <i>C.</i>
For Purple of a Reddish Cast	<i>P.</i>
For Violet Colour	— — <i>V.</i>
For Blue	— — — <i>B.</i>

‘ And if you have any *Black* in a Flower,
 ‘ *that is*, *SABLE*, and may be therefore
 ‘ represented by the Letter *S.* because
 ‘ we have *B* already for Blue.

*An Example of Naming Flowers after
this Manner.*

‘ A Flower perhaps with White abound-
‘ ing, and mark’d with Crimfon, may be
‘ called *William the Conqueror*; the *W* in
‘ *William* expressing the White abounding,
‘ and the *C* the Crimfon: or, in a different
‘ manner, the same Flower might be named
‘ the *Wonder of Constantinople*, where the
‘ *W* and the *C* denote the Colours.

‘ A Flower striped with Crimfon and Pur-
‘ ple, may be called the *Charming Phyllis*,
‘ or the *Curious Ptolemy*, the two first Let-
‘ ters denoting the Colours, always under-
‘ standing that the prevailing Colour is ex-
‘ press’d by the first Capital Letter: So in a
‘ Flower where the *Violet* prevails, and the
‘ other Colour is *Orange*, one may name it
‘ *Victorious Orlando*, or the *Virtuous Ore-*
‘ *da*. Where the Colours are Blue and Red,
‘ the Name may be the *Beautiful Rodolin-*
‘ *da*, or the *British Rover*: and for Yellow
‘ and Purple, one might name the Flower
‘ the *Young Prince*; or White and Purple,
‘ the *Wise Prince*, and so on.

‘ The Curious abroad have now, for the
‘ most part, this sort of Catalogue; and if
‘ they happen to meet with old Flowers
‘ that are not named after this manner, they
‘ add a Character which expresses their Co-

‘ lour :

' lour; as in the Flower called *Duchesse*
 ' *d'Avero*, which is *White* streak'd with *Vi-*
 ' *olet*, and which Name singly denotes none
 ' of the Colours the Flower bears; but as
 ' *Blanc* in *French* signifies *White*, and the
 ' *Violet* is the same in *English* as in *French*,
 ' so they add to the Name, by way of Di-
 ' stinction of Colour, *Bonne Veuve*; which
 ' signifies a *Good Widow*, as herself was al-
 ' low'd to be: and then *B* in the *French*
 ' Word *Blanc*, which is *White*, expressees that
 ' Colour; and *Veuve*, whose first Letter sig-
 ' nifies *Violet*, is Mark sufficient for the
 ' Flowerist to distinguish by. So may we add
 ' a Character to any Flower already named in
 ' *England*; as for Example, the fine Carna-
 ' tion, which is called the *Princess Amelia*,
 ' whose Principal is *White*, and mark'd with
 ' *Violet*: To this might be added, the *Wor-*
 ' *thy Virgin*, taking the Colours of the
 ' Flower from the two initial Letters; which
 ' shew from the *W* the chief Colour is *White*,
 ' and the other in *Virgin* denotes *Violet*.
 ' And by this means you will always know
 ' the Colours of your Flowers, by writing
 ' the Names of each sort on some piece of
 ' Wood, &c. and placing them in each Pot:
 ' So that whenever you see these Names,
 ' you will remember what Colours every
 ' Flower carries with it. One might bring
 ' many more Examples, which I have from
 ' some of the *French* and *Flemish* Cata-
 ' Part I. [G] logues,

logues, but I guess these will be sufficient to inform you of the Design; and so I conclude,

Your most Humble Servant,

P. BELANDINE.

As to the naming of Flowers in this manner, it is, without dispute, something new to us in *England*, and carries with it a necessary Explanation of the Colours of each Flower. I believe every Flowerist, in the common way of naming Flowers with us, is some time or other at a loss to describe the respective Colours of each Flower, when it is out of Bloom, and the above Letter directs us well enough to know them by looking on our Catalogue. But I come now to speak of the Tulip, and its Management.

One of my Curious Correspondents informs me, that the Tulip was brought to us from *Dalmatia*, in the Year 1560, by the Famous *Gesner*, and was then called in that Country the *Grand Turk's Turbant*. He adds, by way of Remark, that it is a Query, whether what we call the Tulip, was not the Lilly of the Field mention'd in the Scripture, as it is a beautiful Flower, and grows wild in that Part of the World; but then says, the *Ranuncula's* grow wild at the same Place, remarking also that he supposes that the

the Word *Lilly* is a general Name, as the Word *Rose* is, neither denoting any particular Flower; but in common the Lillies were herbaceous Plants, and the Roses flowering Shrubs; perhaps the first with more Beauty than agreeable Smell, and the latter had Beauty, and was odoriferous.

But as all our fine Tulips come originally from Seed, it will be necessary to set down the Method of making Seminaries of that Flower, and planting as well as taking that Bulb out of the Ground.

I observe, that as soon as the Seed-Vessel of the Tulip is fully ripe, and the Leaves of the Plant are turn'd yellow, the Fibres at the bottom of the Bulb decay; 'tis then a time when we may take it out of the Ground, and one may from that time to the middle of *August* do the same, without injuring the Bulb: for when the Bulb has no Fibres to it, we may take it from place to place without Injury.

We may also observe, that notwithstanding a Tulip-Root will begin to put out its Fibres, if we leave it in the Ground, towards the End of *August*; yet if we keep the Bulb out of the Ground till *February*, in a dry place, it will not put out one single Fibre; and then if we plant the Bulb, it will in a Week's time sling its Fibres out plentifully: nay, even if one sets the Bulb upon an wholesome Li-

quor, it will do the same, and bring its Blossom as regularly as another planted in the Ground ; which I have try'd, not only in the Tulip, but all the common sorts of Bulbs. We must however observe, that the best time of planting the Tulip, is, when Nature would dispose the Bulb to make Fibres, if the Root had remained all the Year in the Ground, for then the Flower will be the stronger : nevertheless, the Tulip-Bulb, in whatever Season we take it, will give us its Flower, so as to be known by an Artist ; but then if we keep the Root late out of the Ground, the Root will hardly blow the following Year : and if we leave the Root in the Ground, it will be apt to sling out Off-sets, and the principal of them will, from year to year, strike deeper and deeper in the Earth ; so that in a few Years we should see nothing of them but single Leaves, and the Roots then to be taken up would be such as would not produce Flowers in two or three Years. And 'tis to be noted likewise, that if we let them stand long, the Master Bulb will frequently rot.

When we find Tulips in the Condition that we have nothing but Off-sets, which one may discover by the small Leaves they produce, then have a regard to the Roots when the Leaves decay, and take them out of the Ground, and immediately replant them in a good prepared

pared Bed, interring them in such a manner, that the Surface of the Earth is not above half, or at most, three quarters of an Inch over them : but indeed as they are larger or smaller, their Depth ought to be consider'd ; the very smallest should not be cover'd above half an Inch, the middling three quarters of an Inch, and the blowing Roots of Tulips an Inch at most, for they are too apt to run deep in the Ground ; and as Nature shews us, in the Phials I have them in, the Earth is only necessary to feed their Fibres, and not the Bulbs ; for the Bulbs in my Bottles are exposed to the Air, and it is too often the Bulb of a Tulip rots in the Ground.

These are necessary Memorandums to those Gentlemen who are Lovers of Tulips ; and moreover I may say, it shews that a Tulip loves a simple Soil to lodge its Bulb in, whatever one may place beneath for the Fibres to strike into.

When ever we take up our Bulbs, we should immediately divest them of the Off-sets, and replant those Off-sets the same day at four Inches distance, in a fresh Soil, well sifted ; for if we run the hazard of letting them dry, as we do the great Roots, we shall lose half of them.

A *French* Gentleman observes, that such Off-sets of Tulips as weigh a *French* Crown in Gold, will bring a Flower ; or such Seedling Roots of Tulips as weigh so much, we
may

may expect Flowers from the first time of their shooting.

To preserve your Tulip-Bulbs from the time of taking up, to the time of their re-planting, wash them clean from the Earth, and dry them well in the Sun; and then put them singly into Papers, and so into a Bag of Canvass, which must be hung up in an airy place that is dry, and in the shade. This way will keep them well in Strength, and defend them from Mice.

A reddish-colour'd sandy Loam, well sifted, is the best Soil for the Tulip, without any Mixture; for it keeps the Bulb sound, and affords the Fibres an extraordinary Nourishment: but where Dung is much used, though it is three Years old, it rots the Fibres where-ever they touch it; and as the number of such rotted Fibres happens to be more or less, so the Blossom will be weaker or stronger, and moreover the Root for the following Year will be weaker. So again, where any Compost is made for Tulips, if it is not well mix'd, so that all the Parts are, as it were, incorporated, it will distribute its Nourishment unequally, and harbour Canker-Worms in it, which will eat into the Bulb: but there is nothing better for a Tulip, than a fresh natural Soil; which is the best likewise for Anemonies and Ranuncula's.

Those who would take the pains of raising Tulips from Seed, should chuse the Seed from such Flowers as are tall, have large Blossoms, and strong Stems, particularly with good Bottoms; and while they are in flower, mark them with Threads or Worsted, to express the Colours the Flowers are of; and when the Seed is full ripe, break off the Heads or Seed-Pods, in a dry Day, when the Dew is quite gone from them.

While the Tulips are shooting for Bloom, nobody ought to touch either the Stem or the Flower-Bud with their Hands, lest they should bruise them; and when the Flower is perfect, then only one may open the Blossom with two little Sticks, very gently, but without bending the Stalk, lest you bruise it, and thereby hinder the Nourishment that should feed the Seed-Pod.

When the Seed is perfectly ripe, clean it from the Husks, and blow it while you toss it; so will the full grown and perfect Seed fall to the bottom, and the light and unprofitable fly away.

The leaving on the Seed-Pods of Tulips till they are full ripe, helps to nourish the Bulbs; and, as a *French* Flowerist observes, will keep the Bulbs from rotting or shrinking: For, *says he*, if we pull off the Stalk or Seed of the Tulip before the Seed is perfect, or the Stalk will easily part from the Root, we shall tear the Root, and the Root will shrink and be weak, or perhaps rot. But

But to sow Tulips, sift a Bed of fine natural and fresh Soil in some part of your Garden, which lies the best exposed to the Sun; when the Bed is prepared, and the Earth flatted a little with a Spade, sow your Tulip Seed, (not too thick) upon the Bed, and cover it with fine Earth about the thickness of a Shilling, flatting it with a Spade as before.

The time of sowing is the beginning of *October*, and the Bed must be new made the same Day we sow the Seed.

The following Spring the Seed will come up, appearing then like young Onions, and must then be kept very clean from Weeds, not suffering any of them to appear, if possible, above the first Leaf, neither then, nor during the Winter; for if the Weeds grow, they will smother the young Tulips: and if we pull up the Weeds when they have made any Root in the Ground, they will bring out many of the tender Tulip-Bulbs along with them; which, at the first coming up, are so small, as hardly to be distinguish'd, and will perish if we even replant them presently: for the Bulbs will not be larger than a Mustard-Seed, and then one may easily imagine how small the Fibres that feed them must be, so as to perish with the least Air or Bruise. For the Fibres of a Tulip are very brittle, and break with the least Touch, as I find by shifting them from one Phyal to another,

another, when it happens by accident that a Glafs breaks by the Frost or otherways.

The following Year, which is the second after sowing, in some fair Day in *July* take your Seedling Tulips out of the Ground, when you will find the Bulbs about the Bigness of Peas, some smaller, some larger, as you chance to find them shallower or deeper; for it is natural for a Tulip-Root to run downwards, and the stronger the Root is, the deeper it will run, as you will find by these Seedlings.

In the taking up these Roots, one should do it with great Care, lest any of them may be cut, or lost; for one can't tell what a Treasure may be lost in a single Root, considering how much a good Tulip has been valued.

But before we take these little Bulbs out of the Ground, prepare a Bed of fine-sifted Earth of natural Soil, as before directed, to plant them in as soon as they are taken out of the Ground; for they are tender, and will presently dry and shrink with the least Air and Sun, which will hinder their Improvement. Set them about two Inches distance, and about half an Inch deep.

Two Years afterwards take them again out of the Ground about *July*, as before; but prepare first a good Bed for them, after the manner before related, and transplant them at greater Distances, observing,

said before, that in digging for them, you will find the larger Bulbs much deeper in the Earth than the small ones; and some will run very deep, so that without great care you will lose them.

When you take them up, you will find the larger Roots cover'd with a brownish Skin, which will be hard as soon as it comes to the Air, and sometimes this is very thick; but be it as it will, it ought to be pull'd quite off, till we discover the Bud of the Bulb from whence the Stem of the Flower or leading Leaves should proceed. And so when we plant old Roots of Tulips, we ought to do the same by them, especially those which have miss'd flowering a Year; for those always drive deeper than ordinary, and will leave a very thick and coarse Covering over them.

It is a good Rule to take every dry part which appears of a brown or black Colour, from each Tulip-Root before you plant it.

Be very careful in this Plantation of Seedling Tulips, to keep them clear of Weeds, and you may expect the fourth Year some of them will produce Flowers; and then 'tis advisable to draw out such as bring red Colours or Yellows, and fling them away, for they will never break to be fine Flowers. In the mean time, save such as are of a Grideline Colour, of a Purple, and of a Flesh-Colour; as also such as have Blossoms of the
Colour

Colour of a Peach-Blossom, or of a Violet, these will make excellent good Breeders; some of them may perhaps break the first Year of Blowing. But if you have plain Tulips of the Colours I mention, you need not despair, for they will break sooner or later into Stripes. Those of the plain Tulips which we save for Breeders, and to change into fine striped Flowers; I say, those whose Flowers have the thinnest Leaves, will break the soonest; and on the contrary, the very thick-leaved Flowers will be much the longest before they break into Stripes.

A great Florist of *Lisle* says, that to judge of the best Tulips for improving in Colours, we should chuse those which have a small quantity of White at the bottom bounded with Blue, and those with blue Bottoms bounded with White, with such Stamina's as are three or four of them Blue at the bottom of the Tulip.

The learned Philosophers imagine that the Variegation of Tulips, and other Flowers, proceeds from some Weakness or Distemper; and many come into that Opinion.

If when you have a good Stock of Breeding-Tulips, you cannot have patience to wait their natural Course of breaking into Stripes, (for there is not any plain Tulip but will stripe one time or other) you may take the following Method, as it is practised in *Flanders* by the greatest Artists.

Take the Plaister of old Walls, wherein there is a great deal of Lime, and powder it very fine; mix this with Drift-Sand, or such Sand as is sharp, and found on the Sea-shore: to this add of the Water that runs from a Dunghill or Jakes, that one may have an equal quantity of each, and mix these as well as possible, and put it over the Surface of the Bed, a little before you plant your breeding or plain Tulips, and 'twill make them break into fine Stripes to a wonder, as is related to me by a Gentleman of great Honour, who has proved it, as he observed, for five or six Years.

Or as my Friend, who related first this Method to me, observes, some will put of this Mixture under the Roots of the Flowers; but he would have us avoid that, for 'tis, as he observes, too hot for the Roots.

Another Method for breaking of Tulips, which is less noisome than the former, is to take slack'd Lime reduced to fine Powder, and Pigeons Dung, of each equal quantities, well mix'd together, and sprinkle it upon the Bed, as the former was directed. Others use Hens Dung in the same way; and some of lesser Understanding have laid Colours of several kinds on their Beds of Tulips, and even mix'd the Colours with the Earth their Roots were planted in; but the latter sort never received the Advantage they expected from their Experiment.

When

When you happen to have a Collection of such Tulips as are remarkably fine, and you may chance to find that some of them will not flower so fine one Year as another, they ought not to be flung aside for all that, for they will at another Season return to their full beauty and perfection; therefore have patience with them, for many sorts of Tulips are subject to such Changes. One might name many Particulars, but, in a word, there are not above half a score sorts that come exactly alike two Years together; you will find more white this Year, and more dark-colour next Year: and when you see any of the fine Tulips abound in white, and finely streak'd with the blue and red, you may depend almost upon having them dark-colour'd the Year following; but whatever you see dark-colour'd this Year, be sure they will come fine the next, if they are Flowers of a true kind. And was I to chuse a Parcel out of a Bed of Tulips, where I could be sure of the sorts, I should mark those of such sorts which I found did come the least fine, that I might expect a fine Bloom the Year following. And it is certainly good in Reason, from what has been explain'd fully of the division of Colours by the annual alteration of the Roots, as a Gentleman of the Royal Society has set it forth four or five Years ago. On this footing we find that the old Tulip call'd *Vulcan*, and another as old,

call'd

call'd the *Roramonblu*, are remarkable; they will look one Year despicable, and the next will appear in the greatest Beauties one can expect.

I should add, with respect to the raising of Tulips from Seed, that some will blow the fourth Year; that is, the larger Roots will blow then, and so the rest in their degrees will follow, till the sixth or seventh Year. But if we sow every Year, we may have a continued Bloom of new sorts; and I see no reason why any one should discourage himself from beginning such a Seminary, because of the length of time; when we find every one has Courage enough to plant a Fruit-tree, which, against a Wall, according to the common practice, will not bear till the third Year: For whether it is Fruit or Flower that we sow or plant, 'tis with the same expectation of receiving Pleasure from it, and we must wait our time to enjoy it.

But to return to the raising of Tulips from Seed: I have heard from several Gentlemen who have been Eye-witnesses of it, that *Samuel Trowell* Esq; of the *Temple*, has, in one of his Gardens, raised some Tulips from the Seed of that which is call'd the *Triumph of Europe*; which is a Flower Purple and White, finely mark'd, and one of the most constant in its Marks and Colours of any Tulip. In this, as to its constancy of flowering

I

well,

well, it is seemingly owing to its purple Stripes being on the outside. As the striped Plants which have the White on the outsides of their Leaves, or on the Verges of them, never run from their Colours ; so from the *Triumph of Europe* he chose the Seed : and when the first of his Seedlings blow'd, he found very few plain Flowers among them, and even those were of hopeful Colours to refine themselves the Year following, as many of them happen'd to do, and from Year to Year produced great variety of fine Sorts.

Another Gentleman of my Acquaintance saved the Seeds of the *Baget primo*, a notable tall Flower, of a purplish Colour, and well made, but plain ; from which many a valuable Flower has been broke into Colours, or brought to stripe, even so valuable, as to be sold for a Thousand Guilders, *Dutch* Money, one of them.

This Flower he chose for his foundation, and the first Year's Blossom he had none but plain Flowers ; but the second Year's flowering of them, several began to break into Stripes, which were extremely good, and much esteemed by the Curious. And what is remarkable, the same Seed produced Flowers of several Makes and different Colours when they first open'd, and then some few came fine of them, with Stripes. But according to the Philosophy of our Times, with
regard

regard to the Generation of Plants by coupling with one another, it might probably happen from that Cause, that the several Seedlings were so diversify'd.

I wish some curious Gentlemen would try the Parrot-Tulips the next Year, by planting the yellow and the red sorts together, and save the Seeds from them, and sow them; or if these were placed among other Tulips of different sorts, it might be better to produce more Varieties from the Seeds, according to the Doctrine of the Generation of Plants: I say, these Couplings might bring a number of Rarities, if a little Care was taken to put them forward.

The Manner of Raising the Ranunculus from Seed.

THE Ranunculus is certainly one of the most sporting Flowers in the Garden: about *Persia* and *Turkey* they grow wild, as I am inform'd, in vast Numbers, and extraordinary Varieties. We have from those Places received the first that were in *England*, and have now improved them to a very great degree, insomuch, that they make one of the finest Appearances in our Gardens. There is nothing more dazling than a Bed of the double Red sort, nor more surprizing than a Bed of the variegated Kind.

The

The Plants or Roots will increase plentifully if they have the Benefit of light Earth, especially such as is taken out of a Wood, which chiefly is made up of rotted Leaves and Sticks. They are Lovers of Moisture when they have once began to make Fibres, and should have a good share of Sun till they begin to blow, and then should be shaded from the Violence of it in the hotter time of the Day, which will keep them flowering a long while, if we water them frequently; but in the Waterings, great Care must be taken not to wet the Flowers, and indeed as few of the Leaves as possible. The Watering-pot ought therefore to have a long and narrow Spout, without a Rose to it; and if they are kept in this manner, they will blossom for ten Weeks together, and bring great quantity of good Seed; I mean the striped sorts, which are call'd the *Persian* Ranunculus's; and some of them, with good Management, will blow two Foot and a half high.

'Tis the Semi-doubles of this Ranunculus that produce the best Seed for sowing, tho' there are some of the single ones which yield such beautiful Flowers, that Seed sowed from them has brought very extraordinary Plants.

When one has got a Stock once of these sorts that are good, and one has a good Season to save the Seed from them, that is, a dry time to ripen it well, we may present-

ly enlarge our Numbers, and produce new Varieties every Year.

When we gather Seed, it ought to be very dry, without any Dews upon it, the Noon-time of the Day is the best; and cut the Heads of Seed off with a pair of Scissars, and spread them on Sheets of Paper, in a dry Room, where the Sun cannot shine upon them.

The *August* following you must strip the Seed, which is scaly, from the Stalk, and sow it upon a Bed of fresh Earth, finely sifted, and press'd a little with a Spade. Sow the Seeds about half an Inch asunder, which, if they should all come up, they will stand at distance enough for their first Years flowering. When the Seed is sown, if you have any rotted Wood, or rotted Leaves quite turn'd to Earth, or any Tanner's Bark which has lost its heat, and has lain long enough to be mellow, then sprinkle over the Bed some of such Earth finely sifted, covering the Seeds about the thickness of Half a Crown; and in *September* they will come up, and will blossom the next Year, if you can defend them from the Winter. But because there is a Hazard to be run, if a long Frost should happen, many of my Acquaintance chose to sow them in Pots; because, when those in Pots come up before the Winter, they may be set into a Green-house, or some other Place of Shelter, if any hard Weather should

should happen ; and some of these will blossom the Summer following, and one or other of them shew their Flowers till the middle of *July*.

When they flower, tie a String of the Colour of the Flower about the Stalks of such as are good ; and for the others, which are indifferent, pull them up as soon as they shew their Flowers, which will make room for the good sorts to enlarge their Roots ; and when their Leaves are quite dry, take up the Roots, and washing them well, dry them two or three Hours in the Sun, and lay them by in a dry Place till *September* or *October* following, and then plant them about five Inches asunder, in a Bed prepared of such Earth as I have mentioned above. But if you keep them out of the Ground till *March* or *April* following, they will grow and blossom about the end of *May*, or in *June*.

But it is also practised by many to sow the Seeds of *Ranunculus* in *February* and *March* ; and then they escape all the danger of the Winter Frosts, and come very well to get strong Roots before the following Winter.

A Gentleman who has abundance of this sort of Flower in *France*, says, that the best way to keep *Ranunculus* Seed good till the Spring next after 'tis ripe, is, to bake some fine Sand, chiefly of the white sort ; and when it is quite dry, like Sand as is used in Writing, let the little Cones of *Ranunculus*

Seed be stripp'd from the Stalk, and mix the Seed with the Sand ; and then put it in a dry Box, and keep it in a dry Room till *February* or *March*, that you intend to sow it. This Way, he says, will preserve the Seed in good heart ; for as it is thin and light, part of it may decay without such help.

As for the *Ranunculus* Roots, I find they grow very well without Earth amongst my other bulbous Roots, which I have in Bottles of Liquid : And so likewise does the *Anemone* ; and indeed I don't know any bulbous-rooted or such like Plant that will not, whether *Snow-drop*, *Crocus*, *Ornithogelum*, *Bulbous-Iris*, *Funquil*, *Daffadils*, *Narcissus* of any sort, *Crown-Imperial*, *Tuberoze*, *Hyacinth*, *Tulip*, *Colchicum*, and *Cyclamen*.

Some Remarks concerning the Anemone.

THE *Anemone* is a Flower so well known, that I shall say little more of its Character, but that it is next to a *Ranunculus* beautiful : And as for the Culture of it, every Book of Gardening takes notice how to manage it. What I shall mention of it, will be only what either the Writers about that Flower have forgot to mention, or else has not fallen into their Way of Practice.

As first, this Root, as I have been inform'd by a Person of great Veracity, may be kept
out

out of the Ground three Years, and will yet grow. The same Gentleman tells me, that upon the Death of a Relation, who was a Lover of Flowers, there happen'd a Law-Suit, which prevented the Heir of possessing the principal Part of his Fortune for above two Years; and that when he came to the Enjoyment of it, he found a Box of choice Bulbs, and such like Roots, which were most of them dry'd to almost nothing, except only some *Anemone* Roots that were sound and hard. These my Friend desired to make an Experiment with, and they were planted the following Autumn, and grew very well; which so surpriz'd him, that he thought fitting to acquaint me of it.

Another Hint which may be proper to give the Curious concerning the *Anemone*, is, that when we take up the Roots, and they are well wash'd, we should, with a fine Knife, cut off all the rotten Parts that we can find in each Root, quite to the Quick, and then let them dry in the Sun for a day or two, and keep them afterwards in a dry Room, till we think proper to replant them; then give them another Examination, and take away whatever Rottenness you did not cure by the first cutting; and, at the same time, break off the Claws for encrease: and when they are well dry'd, put the Roots in the Ground, so that their Buds may be cover'd an Inch at most. The Earth for these
should

should be pure Sandy Loam, of the reddish sort.

N. B. Without trimming the Roots, as above directed, they will rot.

We may note likewise of the *Anemone*, that one may have a Bloom of it every Month in the Year, by planting the Roots in every Month, when the Ground is not frozen: However, if in *November*, *December*, or *January* there happen hard Frosts, one may plant some in Pots, and give them the Shelter of some Green-house or other, where the Sun may come at them now and then. Or to blossom at that Season, plant some in Pots in *August*, *September*, or *October*; and when the Weather grows harsh, let them have the Benefit of a Green-house, or warm Room, and they will blossom very well: the single ones especially, for the double ones require a Heat extraordinary to open their Thrum, which is commonly much crowded with Leaves. So that when we raise a Bed of Seedling *Anemones*, we should save the Singles of the best Colours to plant for Winter Blowers. Here particularly the Method of raising 'em in Glasses of Liquor is advantageous; for there is no Dirt proceeds from them, as may happen from Pots, and one may set them in the nicest Chamber; and as the Room happens to be warmer than ordinary, they will blow the sooner: but they must have Air
some

sometimes, to make their Flowers carry the better Colour.

To raise this Flower from Seed, one should have a parcel of good single *Anemones*, of good Colours, and well mark'd; and when the Seed-Thrum is ripe, and fit for gathering, it will begin to crack, and shew a sort of a Down or Cotton-like Substance: and immediately when you espy this, gather the Seed, for else in an Hour, if there is the least Air stirring, it will be all disengaged from the Stalk, and blown away. In a fine Morning about ten a-clock, you will find such Thrums of Seed as are ripe begin to crack; and then cut them and part of the Stalk with a Pair of Scissars, and keep them in a warm place till they are quite open'd, and then rub them in very dry Sand, and lay them by till the End of *August* in a dry Place: at which time you may sow them on such a Bed as directed before for *Ranunculus* Seeds, and cover the Seed with fine sifted Sandy Loam, about the thickness of half a Crown.

It is also common to sow this Seed in the same manner in *February*, rubbing the Seed and the Sand together gently as you sow it. It will sprout in about three Weeks after sowing, and the Bulbs will be about the bigness of Peas the same Year, but some larger, and will blossom the Year following.

Of other Bulbs from Seed.

GREAT Varieties have been produced from Seeds of other Bulbs, as from the *Hya-cinth*, by gathering the Seed when 'tis full ripe, and rubbing it out when 'tis quite dry, and then sow it in the End of *July*, in a Bed or Case of fine natural Earth: and this Seed may be covered the thickness of a Crown-Piece, or somewhat more. This will come up the same Year, and must be taken up the Year following as soon as the Leaves or Spires perish; and then immediately, as the young Bulbs are taken out of the Ground, replant them in a Bed of the same Earth at about three Inches distance, and to be cover'd with Earth about the thickness of two Crown-Pieces; and in that Bed they may remain two Years, observing that in all these Seminaries every Weed, as soon as it appears, must be plucked up; for else, if they get a head, they will smother many of the young Plants, and becoming large, will tear up the young Roots when such Weeds are drawn out of the Ground.

When these have shewn themselves three Years, and the Leaf is decay'd the third time, take them out of the Ground, and plant them directly into a fresh Bed of good light sandy Loam, or such as we may gather from the Surface of Woods, or Groves
of

of Trees, being well sifted ; and as you will find some of them begin to shew little Off-sets, let them remain at the Roots without any disturbance, for two Reasons : one is, that it would wound the young Root too much to take them off, and the other is, that if such a Root should bring a good Flower, you will want the Off-sets for Encrease, which would now be fit to separate from the mother Root.

These Flowers, let them be ever so strong, or large in their Bulbs, love the least to be long out of the Ground, but may be nevertheless taken up about *July* ; and when the Off-sets are taken away, the Roots, as well as the Off-sets should be replanted in *August*, preparing the Beds of fine sifted Earth very deep, for the Roots which shoot from the Bottoms of the Bulbs, are large, and chuse to shoot downright, as one may observe in those Hyacinths growing in the Glasses, where every bulbous-rooted Plant shews us the true manner of its Growth.

It is to be noted, that in mixt Earths, that are not well incorporated ; if we plant the Bulbs of Hyacinths where any of the large Fibres happen to touch any Dung which is not perfectly consumed, such Fibres will rot, and then 'tis ten to one, but that rottenness will reach the Heart of the Plant : I have taken up many Hyacinth Roots at different times, to observe their Progress, and as surely

as they meet with unconsumed Dung, the large Fibres will there be rotten; and as they are the Leaders of Nourishment to the Bulb, the loss of every such Leader is so much loss of strength to the Plant: a great many good Flowerists have sustained great losses by this Root for want of making this Observation.

Of the Narcissus.

WE have already great varieties of this Flower, which are much esteemed for their fine Colours and sweet Scent; but if any would sow the Seed of them, we might greatly enlarge that Tribe of Plants, and exalt that Plant to as high a pitch of Reputation as any other. Their Colours are of White, Yellow, and Orange, and there is a chance that one might get a Red or a Blue from Seed; they should be sown as soon as the Seed is ripe, after the Manner, as directed for the Tulip: which is all I have to say of this Flower extraordinary; the manner of its Culture may be seen in other Books.

Of the Crocus.

THE Crocus may be also raised from Seed, and brings extraordinary Varieties, as well in their Colours and Shape, as in the Times of their Blowing. I have seen some surprising Sorts that have been Sold for

two or three Shillings a Root; and some Gentlemen of my Acquaintance have followed so much this taste of raising Flowers of this kind from Seed, that they have, as it were, a new Creation every Year in their Gardens.

The Seed of the Crocus is found near the Root of the Flower; which I mention, because I believe few have observ'd it, at least, 'tis not mention'd in any Book I have read. We may find it ripe about the end of *April*, or in *May*, if we do not cut off the Tops of the Crocus-Plants when they have done blowing, as is the Custom; for tho' we do not cut away the Seed, by thus trimming the Plants, yet we cut away such parts of the Plant as are necessary to nourish and preserve the Seed, till it is full grown and ripen'd.

When the Seed is gather'd, sow it in three or four days time at most, for it will not keep longer, as a curious Friend informs me, without the hazard of Rotting. The best way is to sow it upon a Bed under a Wall, exposed to the rising Sun; the Earth must be light and fine, and the Seed may be covered the Thickness of two Crown-pieces; they will blossom in a few Years, and as I observ'd above, will produce as many Varieties as any other Flower; and as it comes early, makes a graceful Shew in a Garden; and, while I am speaking of this early Spring-Flower, I cannot help taking notice of the

Improvement might be made, by sowing the Seeds of the Hepatica, which, tho' it is not a bulbous-rooted Plant, yet as it blossoms at the same time with the Crocus, and has been diversified by Seed, as I am inform'd, by a *French Gentleman*; so I think it the best place of my Book to insert his account of raising it from Seed.

*Part of a Letter, concerning the raising
of the Hepatica from Seed.*

‘ THERE are divers sorts of Hepatica’s,
‘ as the White, the Blue, and the
‘ Blush or Peach-bloom Colour; of these,
‘ there are the Single, and the Double; but
‘ ’tis the Single that is only useful to raise
‘ Plants from by Seeds; these flower in
‘ *January*, if the Winter has been favour-
‘ able, but are constantly found in Blossom
‘ in *February* and *March*, and then give a
‘ very great ornament to a Garden: and
‘ when the Flowers decay, the Seed-Pods
‘ grow, and ripen as freely as any other
‘ Flower; but one should be careful to
‘ watch them, as they ripen, about the Be-
‘ ginning of *May*, or they will soon be
‘ lost.

‘ As soon as they are gather’d, they should
‘ be sown, for they bring a small Seed, and
‘ therefore ’tis not advisable to keep them
‘ long out of the Ground.

‘ To

‘ To make a Seminary of them, have large
 ‘ Pots or Pans, about ten Inches deep, and
 ‘ a Foot or fourteen Inches over; fill these
 ‘ with a black sandy Soil, such as one gets
 ‘ from Heaths, and well mixt, with an equal
 ‘ quantity of rich Garden-Soil. When the
 ‘ Earth is gently prest down, sow the Seed,
 ‘ and sprinkle over the Seed as much of the
 ‘ same Earth, as when it is prest down, will
 ‘ cover it, the thickness of Half a Crown,
 ‘ then water it well, with a small Watering-
 ‘ pot, and a fine Rose at the end of the Spout
 ‘ to keep the Earth from washing, and cover
 ‘ the Pans over with Nets, to keep the Birds
 ‘ from the Seed; for small as it is, they will
 ‘ have it, if possible: and this being done,
 ‘ set the Pans under a Wall, exposed to an
 ‘ East Aspect, till *June* is past, and then set
 ‘ them under a North-wall, for they love
 ‘ shade.

‘ When these Plants have two or three
 ‘ Leaves a-piece, they may be transplanted
 ‘ in a Bed of fine Earth, of the Sort before
 ‘ mention’d; but it must be done by a very
 ‘ careful hand, for the Roots being very
 ‘ small, should not be bruised by any means:
 ‘ and then, if the Plants are not replanted
 ‘ as soon as they are taken up, the Fibres
 ‘ will be endanger’d of drying by the Air,
 ‘ and then the Plant runs the hazard of
 ‘ being lost.

‘ When

‘ When you transplant these Seedlings, let
 ‘ them six Inches distance, and water them
 ‘ very well, and shade them for a Week or
 ‘ ten Days.

‘ From an hundred of such Seedling-Plants,
 ‘ I rais’d above twenty Sorts, different from
 ‘ what I had before; and if you will try it,
 ‘ or any of your Friends, you will certainly
 ‘ find your account in it.

‘ But I must observe to you, that a Gen-
 ‘ tleman in my Neighbourhood has kept the
 ‘ Seeds of Hepatica in fine dry sandy Earth
 ‘ till the *January* after he gather’d it, and
 ‘ then sow’d it with the Sand; and he tells
 ‘ me, that they come up very well. But
 ‘ when I say that these Seeds should be sown
 ‘ soon after they are gather’d, it is from my
 ‘ Experience that I did so, and they did
 ‘ well; but my Friend observes, that he set
 ‘ his Pots under a South-wall till *March* was
 ‘ over, and so shifted them to another quar-
 ‘ ter, where they had less Sun, and so had
 ‘ a good Crop. This is all that I have to
 ‘ inform you of concerning the raising of the
 ‘ Hepatica from Seed, and am

Mr. COWELL’S

Humble Servant,

PAUL CHANEAU.

As my Correspondent is at present settled in *Normandy* in *France*, and has promised me some Roots of the *Hepatica* of his raising, which I daily expect, I hope to see something very fine among them; but 'tis remarkable, that the first he raised from Seed, was in *England*, and tells me he has therefore given me Directions accordingly.

Of raising the Bulbous-Iris from Seed.

AS I have made it a rule to treat of nothing in this Book but Novelties, and speak only of such things as the Authors I have read, have not mention'd; so I shall say little more of the Characters of the Plants I shall here introduce, but just what is necessary to explain what the Plants are that I write about, except delivering the Observations I have made of their extraordinary Improvement.

The Bulbous-Iris is of the Flower-de-Luce Kind, and has abundance of various sorts and Colours; what I shall say of it particularly, is to give the Method of raising it from Seed.

We must let the Seed be very ripe, and in a dry Day gather it, and let it remain in the Pods for a few days in a dry Place, before we clean out the Seed: When we sow it, which should be in *July*, let it be sow'd
after

after the Manner of the Seeds of Hyacinths, and managed like them, by transplanting from time to time, till they blow. There was a most surprising Appearance of these Plants once raised from Seed, at Mr. *Francis Hunt's*, at *Putney*, in *Surrey*, which were wonderfully esteemed by all who saw them, some of them being marbled with White and Crimson, and others spotted with the same Colours; and, again, others marbled with Yellow, Blue, and White, and streak'd like the Rainbow.

Of raising the Fritilaria from Seed.

THE Fritilary, or chequer'd Daffodil, as some call it, is a Flower well known to the Gardeners, but the Varieties of it are very scarce and uncommon; we have about twenty sorts from *Holland*, of extraordinary Shapes, and odd Colours: and as some of the curious Gentlemen, who are Lovers of Gardening, have begun the raising of them from Seed with us; it is to be believ'd, we shall see as great Curiosities from their attempts, as from those raised in Foreign Countries; and now we have already such a variety, one may more surely expect many more Curiosities of that kind, when they come to blow, that the Gentlemen of my Acquaintance have sown, and from the Seed, one may sow from this year's Flowers.

The

The Seed will shew itself ripe when the Husks, wherein 'tis included, change of a yellowish Colour, grow dry, and crack; then one may gather it about Noon, in a warm dry Day, and keep it till *July*, and then sow it, as is recommended for Hyacinths: you will soon find a diversity in the Leaves of the Seedling-Plants, and when they come to flower, much more surprising Appearances.

The Soil this Root likes best, is a light sandy Ground, and especially such as comes from Heaths, mixt well, with some fresh Earth from under the Turf.

Of raising the Martagon from Seed.

I Have never yet heard of any one who has attempted to raise Martagons from Seed, but a *Dutchman*; and I am credibly inform'd, that he has had some Success in it: there are many Sorts of them which yield variety of Colours, and as several blow together, one would surely save the Seeds of them to expect more different Kinds. If the *Virginia* Martagon would flower with some of the rest, one would be apt to judge, that the Seed saved from that, would produce something very extraordinary; but one would try all the Sorts, for out of each, might come something surprising, and then the Sower would reap the Reward of his

Labour; even, if there was only one different from what had been before, it would be worth his while, whether he sold it, or kept it, as a Rarity for his own Garden.

The Famous Lilly, variegated with Red, or Purple, and White in its Blossoms, was raised from Seed in *Flanders*, though we first had it from *Holland*: and why may we not expect something as extraordinary from the Seed of the Martagons, which are more sporting Flowers than the Lilly?

A Gentleman, who comes from *Amsterdam*, says, that he has try'd already that the Seed of the Martagon will grow, and if it will do so much, there is no doubt but it will do all the rest: he only gather'd the Seed when he found it full ripe, and sow'd it in the first Pot he came to, only he took some fresh Earth that had been brought for his Garden, and it came up soon enough, and strong enough to know what it was; but what the Flowers will be, he waits with impatience to know: from this, any curious Person may take Knowledge enough to try the Experiment.

Of the Crown-Imperial, the Manner of raising it by Seed.

WE have eight or nine Sorts of this Flower, some with single Crowns, some Double, and others Triple; and they for

for the most part appear about the same time in the Spring. I find, that some Gentlemen of *Flanders* have raised several Varieties from the Seeds of this Plant, and therefore I doubt not but our Vertuoso's in Gardening, will, when they are put in mind of raising the Crown-Imperial from Seed, begin upon that work; for the Seedling-Plants will certainly produce something new to us.

It is not a little surprising to observe, that the Flower of the Crown-Imperial hangs down; and when the Seed is set, it grows upright: the Learned, I understand, have had many disputes about it, chiefly, those who have writ for and against the Generation of Plants. But be it as it will, we find the Seeds ripen in large Cases, and they are without dispute as free to grow as any Seed, for they are as perfect; and therefore, according to the Advice I have from the Gentleman who first told me of raising them by Seeds, they must be kept till *August*; after you have dry'd them easily, and then sow'd in Pots of fine fresh Earth, sifted, and cover'd with the same a quarter of an Inch thick.

They will not appear, he tells me, till the Spring following; and after their Leaves decay, take their Roots out of the Pots, and replant them presently into a well-prepared Bed, at five or six Inches distance, and so let them stand till they flower; and perhaps

one may find among them a Flower that may be extolled, as much as the Purple and White Lilly. The manner of treating them when they come once to flower, may be seen in most of the Books of Gardening, and therefore I shall say nothing of it in this Place.

One might still give some account of the raising of Auricula's, Polyanthes, and Carnations from Seed, but we have that thoroughly set forth already; and what I mean here, is to produce nothing but Novelties, and so shall proceed to lay down some particular Remarks of the Culture of Roses.

*Particular Memorandums concerning
the Management of Rose-Trees.*

THE Rose-Tree, for the most part, in all its Sorts, loves Moisture; the chief Sorts, are, the Damask, the Provence, of two Sorts, (that is) the Red, and the common Sort; the Velvet-Rose, the White-Rose of several Sorts; the Carnation-Rose, the two sorts of striped Roses, *viz.* that which is call'd the *York* and *Lancaster*-Rose, and another, which is call'd the *Rosamundi*; the Musk-Rose, the *Holland's*-Rose, or *Belgick*-Rose, and the Double Yellow-Rose, and the Cinamon-Rose. There are many more Sorts which are Semi-double, of little esteem, and of the single Sorts: the most beautiful, is,

tiful

what is call'd the *Austrian-Rose*, because it has a yellowish Colour without side the Leaves, and Red within the Flower.

But of these Roses, I have observed two Manners of Managements; those which are the freest of Spines or Thorns, love Water, and the others, which are fuller of Thorns, may grow upon drier Grounds. And of the first Sort, one may take of the Damask, and the Monthly Roses, and with a large piece of Cork, placed between the Root and the Branch, set them swimming in a Pond, and they will grow for a long time.

All these, and the other sorts of Roses, are improved, by grafting and budding, as the Jessamine; that is, graft them in the Clift in *March*, or about the Beginning of *April*, but the last is rather too late, if the Spring is forward, or else it is a good Season. And to Bud them, or Inoculate them, take the time of their second Shooting, and they will certainly bear the following Year.

The budded Plants will make closer Heads than the Grafted-Trees, but the Grafted-Trees will be more Luxuriant than those that are budded.

It is necessary to observe, that the Rose-Trees we graft upon, should be agreeable to the Scion; (that is) the very prickly Sorts will more readily take upon those of the same Kind, and the smoother sorts of
 3 Roses,

Roses, rather take upon Roses of a smooth Kind, than upon any of the Eglantines or Sweet-Briar Sorts ; but they will all take, if they are Grafted, or Budded, or Inarched upon one another, so that one might have variety of Roses upon the same Tree.

The Eglantine, or Sweet-Briar, is as proper a Stock for a Rose to be grafted upon, as a Quince, a Pear-Stock, or a Hawthorn to graft a Pear upon: only, as I say above, one will bring Fruit sooner, and make a small Tree, and the other will grow Vigorously, and be longer before it comes to bearing.

All Roses without Spines, you may observe, grow shorter or nearer the Ground than those which are full of Spines; but yet they so well agree with one another, that each may be grafted on one another, or budded, particularly the short upon the Damask, to last long.

Again, the Dwarfs may be cut down every Year after bearing, and the next Year will bear plentifully.

Every Rose-Tree, of the more thorny Sorts, whenever they produce a full-blown Flower, cut the Flower as soon as you see it open, down to the second or third Bud of the Branch, and it will presently produce fresh Shoots, with new Buds of Flowers upon them: this was the way the Famous Mr. *Millet*, of *North-End*, practised, to have
Roses

Roses all the Winter, and I have found to be right.

The Double Yellow-Rose is hard to blow ; and some curious Gentlemen have attempted it, without Success, by nailing it against a Wall, but in the open Ground it will do very well, if you cut it down within a Foot of the Ground every Summer after its blowing Season, or make an artificial Shelter to put over it in wet Weather ; for this Rose will never open well, if wet comes upon it while it is in bud ; it loves a full Sun, and an open Air, as there is an Instance of one of these Roses at *Twickenham*, in a Garden, near Mr. *Heather's*, an excellent Florist, and polite Gentleman, famous for Gardening ; I think it is in the Countess of *Westmorland's* Garden.



C H A P. IV.

Extraordinary Observations concerning the Management and Pruning of Fruit-Trees.

AFTER thirty Years Practice, in the several Branches of Gardening, I have made a great Number of Observations, with regard to the Culture and Management of Fruit-Trees, as well as of Flowers, Exotic-Plants, Improvement of Lands, and whatever else fell in the way of my Business, as a Gardener: and as I am desired to put together such Memorandums as I have collected from my Practice; I shall here give a view of such Particulars as are necessary for every Lover of Fruit to understand.

We train up Fruit-Trees in four different Manners, *viz.* Standards, Half-Standards, Dwarfs, and then again for Walls: I shall at the same time let my Reader know, that what we call Standards in a Nursery, are such as have high Stems, and have Heads grafted or budded upon them; so that they may be either planted in the open Ground, or placed against Walls, to fill the Tops of the Walls where the smaller Trees cannot reach.

The Half-Standards are budded or grafted upon lower Stocks, perhaps the Stem not above two or three Foot high, and then generally are set in Beds by way of Ornament, which some prefer before Dwarfs. Now and then indeed they are placed against Walls, to fill a Vacancy where a Tree has fail'd in some of its Parts ; for a Wall should never be empty, if one can preserve it full : which one way or other by Standards, or Half-Standards, may be always cover'd, and being well planted, will bear Fruit the same Year, or the second Year never fails. Gentlemen have often complain'd for want of this Knowledge ; and as every Nursery-man has not fallen into the way of providing such Trees, I would advise those that have been deficient in this Thought, to provide for such Things as their Art leads them ; for Trees well managed may be removed in their second and third Year after Grafting with great ease, and will bear the same Year, as Experience confirms in Plumbs, Peaches, Nectarines, Apricots, and other such like Fruits. There was indeed a Way we had formerly of cutting down every Tree we planted within a little of the Bud ; but then we waited till the third Year before we had any Fruit from it : but now we plant the Standard and Half-Standards with their Heads on, when they are in a bearing State, and the same Year they bring us good Fruit.

There is only this to be consider'd at the Time of Planting, that as the Roots of the Trees are broken at the Removal, we ought to have a Regard to what is lost in the Roots a little before the Trees shoot in their Branches, and prune off a proportionable Quantity of them, to equal, as near as can be, what has been taken from the Roots.

Dwarfs are express'd in the Nursery, to be such as are short and fit to begin and end their Growth in a little Space: but to explain that Character a little more, they are such Plants as are budded or grafted near the Ground, to be set against Walls, to fill the Bottoms of the Walls with Fruits, and by gentle degrees, fill the Walls, if they are not of an extraordinary height; and also to plant in Beds; that they may be kept in narrow Compass and short Bounds.

If the Dwarf of the first Year's Growth is planted against a Wall, it must be always planted with the whole *Bud-shoot* without Cutting, and when it begins to swell its Buds, cut it down to such a convenient order, that every Bud may make a Shoot which may the most naturally grace the Wall, to be laid horizontally, so that the lower Shoot be nailed parallel with the Bed it grows in; then will your Tree from the very Bottom bring Fruit: which part of the Wall is often lost, by leading the Shoots of Fruit-Trees upright.

Dwarfs planted in Borders, have been heretofore much in fashion, to be train'd in the Manner of Basons or Bowls, and led to that figure by Hoops; but as their Shape was constantly to be kept regular, so there were but few Gardeners could keep them in a beautiful Order, and make them bring a good Quantity of Fruit at the same time: for if their Shape was nicely kept, great part of the bearing Branches must necessarily be cut off; and for that Reason, there are few Dwarf-Trees found now in any Garden, except they are such as are grafted upon Paradise-Stocks for Apples, and upon Quince-Stocks for Pears, which may be always kept in a very narrow Compass. But for those upon Free-Stocks, they run or spread to too great a Size; and, besides, the overshadowing the Beds where they grow, they spread over the Walks, so that the Walks are reduced every Year by them: for which Reason most of the old Dwarf-Trees have been reduced and laid into Espaliers, and by that means make an handsome Show, bear plenty of good Fruit, give Air and Sun to the Beds where they grow, and are very graceful to the Walks; first, in their Bloom, and then in their Fruit.

When we have old Dwarfs to manage thus, the great Quantity of Wood which we must necessarily take away, will give the Trees an extraordinary Luxuriance in their

Shoot, and subject them to run into Wood-Branches of great Strength, if we do not observe to take into the Espalier as many of the Shoots of the last Year as one can get. But in this Work one shall find sometimes more, sometimes less of them; and the more we can lay in conveniently, the less should we prune the Roots: and so on the other hand, where we can bring in but few young Shoots to our Espaliers, we ought to take away a proportionable Quantity of the large Roots.

But, again, in this Work, we ought to lay down some Shoots on each side the Root, to run as near the Earth as possible, that the Espalier may be full from the Bottom; and to do this, it will be sometimes necessary to give some of the large Branches an Half-Cut to bend them down, and bring them to the Line of the Espalier. What I mean by the Half-Cut, is such as is done in the Plashing or Splicing of Hedges. When we lay the more stubborn Shoots into the Ground, we cut them half through, and then by force bend down the Branch, letting the Wood rive or split, till 'tis come to the Disposition we design it.

When these have shot a Summer, contrive, if they are Pears or Apples, to save such young Shoots as will bend easily, and can be laid down horizontally, to spread the Tree as much as can be, rather than make it rise
to

to the Top of the Espalier; and then observe from Year to Year, that every other Shoot be shortned, so that it may give new Shoots to fill the Space that the other different Shoots will leave when they grow too big for bearing, and ought to be taken away; so you will always have a Succession of Fruit, for 'tis the young Wood that always bears.

But suppose your Trees train'd in this Way are too strong in their Growth, that most or all their Wood is over-luxuriant to bear the next Year; then from the Middle of the Tree let a strong Shoot grow up, to carry off the most watry Juices, and the young Wood, in the lower Part will bear, while the other may be train'd to make an Head above the Espalier, and will also bear plentifully, while the bottom Part will also produce abundance of Fruit.

Another way, to stop the too vigorous Juice or Growth of a Plant; is to cut off some of the great Roots about the Beginning of *May*, and make the Incision so wide, that the Roots may not join together again: for if we only cut them and leave them together, they will join, and then by our Correction we shall have little Benefit: for when the Juices are flowing, we find how ready Plants of different Sorts are to unite, as in the Case of Graffing.

There is another way to correct the great Luxuriance of a Plant and bring it to bearing, which is to put Wyers, and twist them hard about the main Stem and large Stems of the Plant. This will do, in some measure, to restrain the too vigorous Course of the Sap; and by that means, help to bring the Trees to bearing sooner than otherways they would do. This Restraint one ought to lay upon Trees dispos'd in Espaliers when they shoot in too vigorous a manner, for vigorous Shootings in all Trees make them bad Bearers, and the Sap must be restrain'd in such Cases, to make Trees bear well.

Another way has been try'd to cheque the Over-Luxuriance of Trees, and bring them to bear Fruit by wounding them, and cutting Notches in their great Stems; which may be done, and the Tree will for some Years bear very well: but then when the Tree has remain'd in a bearing State for about a Dozen Years, it will decay so much, that the Fruit will grow small, and the Tree by degrees will perish.

Some have made Wild-skrews, as they call them, about the great or main Stems of Plants, whether they were Dwarfs, Wall-Trees, or Standards, &c. which have brought little immediate Good, as I could find. The way of making this Wild-skrew, for it may do some good in Time, if any one has a fancy to try, is to mark the Bark
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of a Tree round and round in a Skrew-like Manner, five or six Circles, and cut the Bark in those marks, to the Wood about the tenth Part of an Inch wide. Trees that have been so serv'd, lose a great many of their Vessels of Nourishment, or such as regard their Growth, but the Fruit-Vessels are not touch'd by that Means, and it is likely, as Observation informs me, that by this cutting, what would not have born Fruit in three Years without it, will bring Fruit the second Year; or if very strong Shoots were upon the Tree, the third Year may produce Fruit. There is a nearer Way than this of making Trees bear Fruit, and that is by budding or grafting them with the Buds or Scions of good bearing Trees, which having a good digested Sap in them, will communicate it to the several Parts of the Tree, and make it Fruitful like the Case of the Jessamine, which Dr. *Laurence* mentions of budding or grafting the striped Jessamine upon a plain one, the yellow Colour in the Variegations of the striped Sort will be in a Year or less communicated all over the Plant, so as to appear in the Leaves every where about the Plant, it is budded upon, even tho' the Bud does not take. So have I found Pears against Walls, and in Espaliers, to be brought to bearing by this Method, *i. e.* by grafting the good Bearers upon

upon the flush growing Trees, and bringing them to bear.

But I must yet observe, that Espaliers are the most profitable and most delightful Fence in a Garden; for they give Air in the Winter to the Flowers growing in the Borders where they stand, and shade them in the Summer from the too great Heats. The beauty of making a delightful Hedge, with the pleasure arising from their Flowers and Fruit, make them far preferable to Evergreens: and I suppose this is the Reason why Evergreens are now so seldom planted, in comparison to what they used to be.

An Acquaintance of mine tells me, that when his Dwarfs bear indifferently, or not at all, he digs round the Roots towards the outsides of their Fibres, and by force takes the most fibrous Parts of some of the great Roots out of the Ground; and after they have lain a Month expos'd to the Air in *January*, he puts them into the Ground again, and the Trees will come to bear: but he judges that the Trees are injured by it, for in often digging about their Roots, he finds some Roots are rotted, which he supposes are those he raised from the Ground; but they bring Fruit by this Means.

Where a Tree of this Sort will not bear Fruit, you may be sure its Infertility is owing either to its too great Vigour, or the
want

want of knowledge in the Management of it.

In a Standard indeed, the more it grows, the better; but in a confined Tree or Dwarf, we must give it a proper Government to make it bear Fruit and appear Handsome. When I speak of Dwarfs here, I mean only the old Dwarf Pear-Trees, or those of such sort which are laid in Espaliers or against Walls, which, whether they be one or the other, must be managed in the same Manner; for in *France*, from whence many fine Pears and other Fruits are brought to us, they use no Walls, but have generally their best Fruits treated in Espalier. For they don't want Walls to ripen their Fruits, they have Sun enough; and in short, the Management of an Espalier-Tree with them, is the same as a Wall-Tree ought to be with us, that is, to dispose the Branches in the same Manner upon a Wall, as one would do upon an Espalier: I mean, to lay in the proper Branches for Fruit-bearing this Year, and to provide for the following Year, a convenient Quantity of other Shoots, that will then bring Fruit; for else you will have Fruit one Year, and none the next.

And if we lay in only such Branches to the Espalier or Wall, as will bear Fruit the same Year, the Tree will be so crouded with Fruit, if it has a favourable Season to blossom in, that all the Fruit will be small

and of little Value, unless one was to pull half of it from the Tree, in its half-grown State, and that would weaken the Tree; so that 'tis necessary as well for the Health of the Tree, as for our Pleasure and Profit, to keep Wood or Shoots of two Seasons or three Seasons upon the same Tree, to have good Fruit every Year, and preserve the Tree in good Health. But I shall speak more particularly of the Management of each respective sort of Fruit-Tree by and by; in the mean while, I shall treat of the best Method of planting Espaliers.

Of planting Espaliers of Fruit-Trees.

AS it is now the common Practice to plant great Part of our Gardens with Espalier or Hedges of Fruit; I find 'tis necessary to take notice of a Fault or two, which is often committed in the making such Plantations, *viz.* the planting the Trees too Close to one another. I have seen some that were planted at four feet distance, and by being so near to one another, the Trees have been so clutter'd in their Shoots, that they could neither bring any Fruit, or a Prospect of bearing Wood to be laid into the Espalier within the Compass design'd for it; but the Trees were mounting, and would in two Years more have rais'd themselves to twice the height of the Espalier.

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The Trees I mention here, are Apples and Pears. To remedy this Evil, there is no other way than to take up two out of every three Trees quite through the Line, that is, leave the first Tree of the Row standing, and take up the second and third ; leave the fourth, and take up the fifth and sixth ; so leave the seventh, and so on : So will your Trees stand at twelve Foot distance, which is the least that Apples or Pears ought to be asunder, if we lay them in Espaliers ; for then they have six Foot each to spread on each side their Root : but if we plant Apples or Pears in Standards, they ought to be set five and twenty or thirty Foot asunder.

Every sort of Tree to be planted in Espalier ought to be set at a proportional Distance, according as it would come to be a larger or smaller Tree in its standard State ; the shortest Shooters may be planted nearer together, and in Proportion, the longer Shooters should be set at greater Distances from one another.

Of the Pears, such as the *Quisse-Madam* shoots to a great length, and requires room, while all the other Pears require less. The Abricots are all, except the Masculine and the *Bruxelles*, great Shooters, and want a great deal of room.

The Peaches are most of them about the same degree of strength in Shooting as the

Masculine Abricot, except the *Newington* and the *Katharine*-Peach, which bring long Shoots; and so the red *Orleans*-Plumb, and the white *Orleans*-Plumb, which some call the Green-Gage, are the briskest Shooters of all the Plumbs, spreading in one Year, as much as many other sorts would do in two Years. Cherries will likewise do well in Espaliers, and when we consider them, we must have regard that the small *May-Cherry*, or *Hatife*, is the least Shooter of them all; and those of the Heart-kind are as great Shooters as any of them: these likewise may be put on Espaliers or against Walls.

Rules for planting of Espaliers to be Ornamental, and to afford Variety of Fruits.

ALL Espaliers of Fruit-Trees, we ought to allow six Foot in height; for if they are lower, there will not be room for the large Shooting-Fruits to spread their Branches for bearing; and if they are higher, they will in the Summer give too great a Shade to the several quarters or parcels of Ground they encompass; and if they are too High, the Plants near them will be drawn and grow weak.

I suppose two Lines of Trees to be planted for Espalier one hundred Yards in length each, and to be opposite to one another; I would

would therefore, in such a Work, contrive for the Sake of the Beauty of that Plantation, as well as for the profitable Pleasure of it, to set my Trees in the following manner ; *viz.*

At the Corner, a Standard-Peach, and then a Dwarf-Tree of another Sort, that brings a white Blossom such as a Plumb or Pear ; but I here suppose a Pear for the sake of the Distance, which should be planted six Foot from the Standard-Peach, and at twelve Foot distance another Pear ; so that the spreading Branches of each of the Pears, will be on either side the Root, six Foot.

Then again, at six Foot distance from the second Pear, plant a Standard-Peach, so that the Stems of every Standard may surmount the Espalier Hedge a little ; and then, six Foot beyond the Standard, plant another Pear, and twelve Foot beyond that another Pear, and then six Foot beyond that a Standard-Peach. So on each Side the Walk, we should have the beautiful Appearance of Standards in Bloom in *March*, and part of *April*, of the Peach-Bloom ; which would make a beautiful Appearance, while the Pears were preparing their white Blossoms, or would accompany them in *April*. And there is hardly any Flowering-Shrub so gay its Blossom, as the Fruit-Trees I mention, besides the Benefit of the Fruit.—— I could have mention'd the Almond, because it comes early, even in *February* ; but as
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it is apt to grow too quick to keep measure with our Espaliers, and does not bring a Fruit agreeable to them, I shall leave that Tree for some other Place : tho' either the Peach or the Almond-Standards, might be train'd up in a Pyramid, as I would wish them to be.

Again, we may have another way of planting Espaliers ; that is, to place an Apple next the Corner for the Espalier Way, and twelve Foot from that, plant your first Pear-Tree ; for the Pear-Tree Shoots, if they are lead to bear Fruit, will spread towards the Apple six Foot ; and the Apple, which shoots as much, being planted in the Corner, will as easily meet the Pear-Tree, and the Branches of the Apple-Tree on the other Side, will be turn'd another way ; that is, to the other Walk : and then plant your Pears at the same Distance as before directed, *viz.* Two Pear-Trees, and then an Apple-Tree. But the second Apple-Tree now must be twelve Foot from the second Pear-Tree ; and then two Pear-Trees more, and then an Apple-Tree at the like Distance, and so on.

The Reason of this, is to shew Pannels of different-colour'd Flowers in your Espaliers ; for the Apple-Tree has a reddish-colour'd Blossom, and the Pear white, so that when these are in Perfection, the Apple-Pannels will make a regular and beautiful red

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Colour

Colour against the fine White of the Pear-Blossoms ; which Contrast will yield a very delightful Prospect, especially when the Apples are justly placed and well managed.

But as I have placed the Apples and Pears together, so let me now make a View through a Walk between two Espalier Hedges of Plumbs and Peaches, because they both blossom early and at the same time : and in this Case we may use our Pleasure, whether one would have a Standard-Peach to begin with or a Standard-Plumb ; for if you chuse the Peach for the Standard, then you must have two Plumbs before you come to the next Standard-Peach, and so on. But the Distance these Trees require, is very different from that of the Pears and Apples ; for where they must have twelve Foot, the Plumbs need not have more than eight or nine, because they are not such luxuriant Shooters. I think there can be no greater Beauty in a Garden, than to see the Spring usher'd in, in so pompous and delightful a Manner, for these blossom as soon as any Flowering-Shrubs, except the Mezerion ; and the Diversity of Colours is very engaging between those of the Peach and the Plumb, for you have the pure Bloom Colour, the White and the tender Green of the Leaves diversly mix'd.

But suppose we were to plant the Peach and the Plumb in Pannels, as I have mention'd

tion'd before of the Pears and Apples, or Pears and Peaches; it would still afford an extraordinary Prospect, when we have Standards, as I have hinted above, planted at certain Distances: the Stems of them are so many living Stalks to support the Espalier. And thus far have I given General Rules for planting of Espaliers, and now come to Particulars.

Of Pears in Espaliers.

WE must consider, when we plant Pears in Espaliers, that those sorts of Pears which require the least assistance of Heat to ripen them, are the most proper; but the Winter Bon-Chretien requires a Wall, as do all those Sorts which come to eating in *January, February, and March*, as the *Bezy de Chaumantel* and such like: and for such sorts of lasting Pears, they ought to have the best Exposure, that they may have all the advantages of the Sun and Heat that may be, for else they will want that fine Relish and Flavour which we find in the Pears of that sort, which are brought over every Year from the Gardens about *Orleans* in *France*: and without they are fully ripen'd, they are little better tasted then a Turnip. But I shall explain the way of mending these Late-Pears more at large, when I speak of planting them against Walls. In the mean time,
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when we plant these sorts of Pears in Espaliers, which are the most proper for such Direction; that is, the several kinds which ripen or are eatable before *Christmas*, remember to set them at twelve Foot distance, and bend down every Branch towards the Ground that will well come into the Line of the Espalier, and cut away the rest, not suffering any Shoot to stand upright, for that will run away with all the Sap: but if any is so disposed, after you have laid down one or two to spread on each side, either cut it close, or else bend it with the rest towards the weakest Side of the Tree; and do this as soon as each Tree is planted, taking care to spread the Branches in an exact Line to preserve the Regularity of the Hedge or Espalier. I advise this, because if we were not to bend down the Branches as soon as the Trees were planted, but defer it till a Fortnight or a Month after, we should, in that Work, break the young shooting Roots, and spoil our Tree; so 'tis the best way to do it at first: And Experience shews us, that a Tree planted in a favourable Season, will begin to make new Roots in three or four Days,

We may tye down the Shoots of our young planted Trees to short Stakes the first Year, and in the second Year set up our Espalier, which may be made of Arbour-Poles, such as Ash-Shoots, or Poles of fourteen or

fifteen Feet in length; and chiefly I recommend, that you are not too sparing of them, for if you place them too thin, you will want necessary hold for many Shoots of your Trees, and then, rather than a proper bearing Shoot should stand a little out of Order, it is generally cut off, and such Shoots which are the shortest, are those which are the best disposed for Fruit-bearing; so that by losing any of them, we are sure to lose a proportionable Quantity of Fruit.

If a Tree is in Heart and Vigour, preserve the smaller Shoots, and keep your Espalier as free from large Shoots as possible, unless in the first training up your Espalier you lay some of the large Shoots horizontally, to spread your Tree, and from them will come bearing Shoots.

But if your Plants only put forth small and weak Shoots, then there is some Fault at the Root, which ought to be corrected by laying the Blood of Cattle, or the Inwards of them about the Roots, and some fresh Earth; this Method is incomparable for strengthning and recovering decay'd Trees, and that Work should be done about the End of *October*, or the Beginning of *November*.

Another way we may take to help a decaying Tree, if it is a Sort of Fruit that is scarce: When we find it produce only weak Shoots, plant on each side of it, with-
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in three Foot of its Stem, a strong Stock or Wilding, to inarch some of the Branches upon; and in *May*, chuse out two of the best Branches of the sick Tree, and inarch them on the Stocks, and so let them remain growing for a full Year, by which means the strong and vigorous Juices of the young Stocks, will pass through the sickly Plant and restore it. Some of these Trials were made fourteen Years ago, by a Gentleman in his Gardens near *Kensington*, with so good Success, that the great Tree was saw'd from the Root, and being wedged up, yet remain'd Bearing and Shooting freely by the strength of Nourishment it receiv'd from the two Stocks, it had been inarch'd into the Year before, having lost all correspondence with its own Root, which made the same Gentleman afterwards inarch a young bearing Tree in a Pot between two free Pear-Stocks; and when it had taken, expos'd even the Root of it to the Air, which has been since practis'd by many as a Curiosity to shew the Circulation of the Sap; but the main Design was to shew, that by transfusion of Sap from an healthful Tree into a sickly Tree, the sickly one would gain Strength and recover: and there is no more difficulty in understanding this, than in all sorts of Graffing, the Sap communicates itself from the Stock to the Scion.

As for the pruning of Espalier Pear-Trees, you should always observe, that you have no Wood in your Espalier above three Years old, except the main Branch or Stem, or such as must necessarily be the Leaders to produce such Shoots as I speak of, and then you may expect Fruit every Year.

Again, When you lay in any of the large Shoots, leave them their Length, and they will produce bearing Wood; and when you cut off any of your large Shoots, cut them clean home to the Stem from whence they grow.

Another thing to be taken notice of, while I am speaking of Pears is, That a Pear ought not to be gather'd till it will easily leave the Tree, or part from it without tearing.

I am inform'd, there are not less than three hundred Sorts of Pears in some Catalogues; but it is well if we have forty good Sorts, worth the Pains required in their Culture. And as it is common for many Gentlemen to have Seats left to them, wherein there have been large Collections of Fruits made, it is almost as common to meet with some in such Collections as are not pleasant to them: so the way to remedy that, if an Espalier be in good Order, is to bud such Sorts as they like, upon those which are not agreeable to them, and to put at least six Buds upon a Tree; and without disturbing the Fashion or Order of the Espalier, in two Years

Years you may have your whole Tree full of the Fruit you desire: for as the Buds or Inoculations grow, you may cut away the Wood of the Sort you dislike, and keep your Espalier full, till you bring it to bear only such Fruit as you the most desire.

We must note, that a Loamy Soil is best for a Pear, but it will thrive in the strongest blue Clay, where it will shoot very Strong and Luxurious Branches without bearing for some time; but that may be corrected by managing the Roots, as above directed.

Observations concerning the Management of Wall Pear-Trees.

WHEN I speak of Trees to be planted against Walls, they ought to be managed in the same manner as I have mention'd for Espaliers; that is, lay their young Shoots horizontally, beginning with the lowest you can get, let them be strong or weak: for one should not let the first Branches or Shoots lie more than six Inches above the Ground for common Pears, and for the longest Sort of Pear, which is Dr. *Udal's* great Pear, call'd by some the Union-Pear, whose Fruit is about that Length, one may allow eight Inches, and as our Trees grow more and more, let the Horizontal Branches, if we have room to spread them, be at least
 six

six Inches asunder ; for out of them we shall for many Years have bearing Wood shoot out at every Knot, if the Shoots are not top't. But see farther my Advice given concerning Espaliers.

When we plant a Pear against a Wall, let the main Stem be set six Inches from the Wall, to give the better Nourishment to the Root ; and when we plant it, observe that the Tree be inclining to the Wall, that when we come to lay in the Branches, we need not strain or break the Root, by bringing the Branches to the Wall.

A Pear for a Wall may be managed much better, if it be upon a Quince-Stock than upon a Free-Stock, because upon a Quince, a Pear will be less Luxurious, and take much less room in its Shoots ; but then a Pear upon a Quince will not last so long, as one upon a Free-Stock.

We must remember in planting of Pears against Walls, that they require at least six Foot on a side to spread their Branches ; so that the whole Tree when 'tis perfect, will spread twelve Foot.

If then a Peach should be planted next to a Pear, we ought to allow first six Foot from the Root or Stem of the Pear, for the Pear to grow in, and then we should measure off about four Foot for the Peach, which in all will make ten Foot between the Trees, that is, six Foot for one side of the Pear to spread

on one side, and four Foot for the Peach; for a Peach seldom spreads above eight Foot in all, and a Pear, which is the most Vigorous Plant for shooting, if one allows it twelve Foot, if it should be one of the smallest Shooters, 'tis enough; unless it happens to shoot like the Pear call'd the *Quisse-Madam*, and then it will take up more room; but as that is a Summer Pear, it has nothing to do with Walls: But I mention it, because some have been so Ignorant as to plant that very Pear, which wants no help with us, against a Wall. But some of the Winter-Fruits shoot almost as strong as the *Quisse-Madam*, and therefore should have more liberty than the others.

One may see in a Nursery, when we buy Trees, or if by order they are sent into the Country, one may know by their Shoots, what room they will require if they are sound Plants: On the large Shooters you will find Shoots of three or four Foot long of one Summer; and in the smaller Growers, you will perhaps find a Master-shoot of two Foot or two Foot and a half long, proportionably thick; that is, the Largest, about as thick as one's Thumb, and the Smallest about an half less. And if they are prun'd to be laid into the Wall, as the Gardeners Term is, leave the vigorous Shoots two Foot at least in length, and the smaller about a Foot long; but the small Shoots should not be

be pruned at all, nor, if there is room enough, would I prune the very long ones, if they can be laid Horizontally: but let them seek their natural Design, as far as the Liberty of the Wall will allow; and then, like Standards, they will bear plenty of Fruit, for Standards that bear the best are never topt; and they have always Fruit without pruning, when our Wall-Trees want Fruit frequently, by indiscreet or bad Pruning. When I mention this, I don't speak of my Brother Gardeners, but of those who put on the Apron, and never had an opportunity of doing any more in a Garden, than wheeling a Barrow in some Work that was designing or laying out. We have a great Number of those who, in one Season, will with their Knife or Sheers ruin all the Fruit-Trees they are put to; but at most, they will spread a Tree like a Fan, and think they have done Wonders. But 'tis not the regular Figure of a Tree in the Winter, that will give us Fruit in the Summer: one ought indeed to make them appear pleasant to the Eye, if one can, when the Leaves are off; but in every Cut we take, we ought to judge what will be the Effect of our Pruning, when the Season for Flowering will happen; for there our Skill will be exposed, and the Proof will be, who has pruned well, and who has done otherwise. But I have said enough about the pruning of Pears in Espaliers, or
 against

against Walls, to give every one an Idea of keeping such Trees in Compass, and making them bear Fruit; and I shall now proceed to the Culture of Apples on Espalier, and against Walls, if you will have them; but I never found they were much mended by Walls, unless in one Instance, the Juniting-Apple ripen'd sooner, by being planted against a South-Wall, by three Weeks, than it commonly used to do in a Standard, in the open Ground.

*Remarks tending to the Improvement of
Apples in Espaliers.*

THE Apple, like the Pear, is more or less free in its Shoots, as it happens to be grafted upon a *Free-Stock*, or a *Paradise*; and, again, some Apples will shoot more Luxuriant than others, let them be upon what Stock soever they are grafted upon.

The *Holland's-Pippin* will shoot more Wood in a Year, by about a third, than the *Golden-Pippin*; and so when we place them in Espaliers, we ought to have that consideration, and provide a Distance accordingly, that either of the Trees may have due Liberty to spread themselves.

The *Holland's-Pippin* shoots as strong as the *Quisse-Madame* Pear, and requires as much room, while the *Golden-Pippin* does not require above eight Foot, to allow it

Space enough; and so as we observe the Strength of Shoots in Apples, as I have observ'd above in Pears, we ought to place them accordingly. And if we make an Espalier of Apples, assort them, so that one may preserve the Distances or Dimensions of their Panels in Espalier, and plant a Standard-Pear at every regular Distance, to yield a white Blossom, when the Apples put forth their beautiful Red.

Or the Apples and Pears might be planted in Panels alternately, as I have spoke before of the other Fruits.

If we plant Standards of any Sort in our Espalier, they should be kept in a Pyramidal Figure above the Espalier, and not let them spread by any means in a wild Manner; for as the Espalier is a Scene of Regularity, so the Ornaments we give it by the Standard-Tree, ought to be so: or we may cut the Heads of the Standard-Plants upright, over the Espaliers, in the Fashion of a Fan, on the Side next the Walk; and if one will, let the Branches on the other Side, over the Quarter, grow at their Liberty, which would certainly be a means of giving more Fruit. But whenever Trees spread in their Heads, 'tis certain they give a Shade and a Drip; so it ought to be considered, whether what is lost by Under-Plants, from the Shade and the Drip, will countervail or be worth the Fruit they may produce.

The time of Planting these, as well as Pears, is in the Spring, or in the Autumn, unless one would plant at Midsummer, in Mud, according to the Method lately set on Foot. Apples should be pruned like Pears.

*Of Peaches in Espaliers, and against Walls;
Observations concerning their Manage-
ment.*

WHAT I shall here relate concerning Peaches in Espaliers, is, with regard to their Management, the same that they ought to have against Walls.

Peaches and Nectarines have the same way of Management, and so they may be treated of, all under one Head: neither of these love the Knife, for frequently, by cutting them too much, they run into Gum, and then perish by the Canker.

Plant them in the Spring, or in Autumn, but the Autumn is the best for them, because they open their Blossoms early, that is, in *March*; however, they will grow with a little Care, even when their Blossoms are opening, and one may also graff them at that time.

In the Directing these against an Espalier, lay their Shoot Horizontally, and when you give them the Spring pruning, whatever you cut off, cut it clean by the Stem, unless you have a large Shoot which may be wanted to

fill the Tree; and then top that so much, as till you come to the Triple-Buds, and they will give you Fruit-bearing Shoots for the Year following, which Shoots at Midsummer, will be perfect, and should be ty'd then to the Espalier, as many of them as will lie easily to it, while the others that shoot forwards should be quite cut out. So against Walls, dress your Peaches and Nectarines in the same Manner.

When we plant Peaches in Espalier, we must consider that those which ripen the earliest, are the best, and so the latest for the Walls. For Espaliers, the *Anne*-Peach, and every other sort that ripens as late as the *Newington*-Peaches, or in good Years, any of the Peaches that come before the *Katherine*-Peach, will do; but for Nectarines, we must have only the very forward Sorts in Espalier, for else they will not be high flavour'd, as they are against Walls; and even all the Summer-Sun, with the help of the Wall, is not powerful enough every Year to ripen the Fruit of some Sorts; therefore if we would plant the very latest Nectarines against Walls, let the Walls be such as are called Fire-Walls, which are now much in Practice, and force such Nectarines to blossom a Month before their time, that their ripening Season may be in the hottest Time of the Year.

'Tis to be noted, that a Peach and Nectarine loves a loamy deep Soil.

*The Management of Plumbs in Espalier,
or against Walls.*

THERE is little difference between the Management of the Plumb and the Peach ; for as Peaches and Nectarines are grafted upon Plumbs, so 'tis the Plumb that directs the Nourishment from the Earth to the Peach or Nectarine that is ingrafted upon it, and then the same Soil is good for one or other ; and so the Shoots likewise grow nearly in the same Manner as those in Peaches : but the Plumb does not want so much Sun to ripen the Fruit as the Peach, and therefore Plumbs will do very well in Espaliers ; but as is remark'd before, one must consider the proper distance between Tree and Tree, the great Growers to have greater Space than those of the smaller Shoot.

It is remarkable that the Plumbs in Espalier, are more cassant or crackling in their Flesh, than those of the same Sort against Walls, and come a Fortnight later than the Wall-Plumbs ; but the Wall-Plumbs are higher flavour'd than those in Espalier or upon Standards.

The Times of pruning of Plumbs, are the same with those of pruning the Peach.

Most sorts of Plumbs will dry extreamly well in a gentle Oven; to be gather'd in a dry Day, a little before they are ripe: the best way of drying them is to lay them upon Wire-Sieves.

Particular Instructions for the Management of the Abricot in Espalier, or against Walls.

THERE is hardly a greater Shooter, or quicker Grower, than our large kind of Abricots, I mean the *Roman*, the *Turkey*, and the *Orange*; but the Masculine is a small Shooter, and the *Bruxelles* Abricot, if it is upon a right Stock, is moderate enough in its way of Shooting: however, let it be as it will, the *Bruxelles* kind, may be kept within tolerable Compass.

The masculine Abricot, and the *Bruxelles* to be planted in Espaliers being consider'd as the smaller Shooters, may be planted within eight Foot of one another; but the other Sorts will require twelve or fourteen Foot distance, especially when they are planted against Walls; for the like Kinds of Abricots want Walls to ripen their Fruits in full Perfection, in some of the *Northern* Parts of *Great Britain*.

But 'tis necessary to have Abricots as well against Walls as in Espaliers, even in the warmest Part of our Climate, to have the

Fruit at different Seasons, of the same Sorts ; and moreover, to have the same Fruit bear different Tastes.

But there is yet a Regard we ought to have to the Abricot, more than is commonly observ'd ; and that is, That as it generally (I mean the late Sorts) likes the Shelter of a Wall, so as I have observ'd before, it requires Room ; and even will spread the side of a Barn fifty Foot, as may be seen in *Oxfordshire*, at the Right Honourable the Earl of *Macclesfield's* ; and about as much I have observ'd it in some other Places. The Soil there is Chalky, which is enough to denote, that such a Soil is good for an Abricot, tho', as I mention'd before, that where Plumbs would grow well, the Peaches would do so too, by being engrafted upon them. So the Abricot, which is likewise graffed on a Plumb, may teach us, that the same Soil which is agreeable to one, will be agreeable to the others : but the Abricot does not love the Knife no more than the Peach ; and lay the Branches horizontally.

Of Cherries, their Management in Espaliers and against Walls, particular Observations.

CHERRIES not being such free Shooters as the Abricot, and all their Sorts being early Ripe, will make good Espaliers,
to

to be planted at eight or nine Foot distance. The Time of Planting them, is the same with the Fruits above mention'd ; we have great Variety of Sorts : but I would not advise them all to be planted against Walls or Espaliers ; for the *Flemish* or the *Kentish* Cherries, are always Sour upon Walls ; and the White-Heart does much the best in a Standard. But as for the Dukes and other kinds of Hearts, they will do well upon Espaliers or Walls ; and we have moreover the little *May* Cherry, which, by way of Curiosity, one may plant against a forward Wall, to bring its Fruit early ; but in Espalier, it will make but a trifling Appearance.

The Standard Cherries so call'd in the Nurseries, are of the kinds I have mention'd, good to set between Peach-Trees, or Abricots or others, because the Heads of the Cherries will at the planting of the Wall, fill the upper part, while the Dwarfs of Peaches, Nectarines, and Abricots fill the Wall at the bottom ; and the Wall by that means will be soon cover'd. But then as the Peaches or other Dwarfs grow up, the Cherries should be taken away, and set out for Standards properly in open Ground. They will indeed make but an awkward Appearance the first Year of planting, because they have been flatted to a Wall ; but the second Year they will be much better in their Figure,
and

and the third make good Heads ; but when I say this of the Cherry-Trees taken from a Wall, I ought to mention, that they will bear good Fruit from the first Year of transplanting : however, some who love Regularity, will cut the Heads or Tops down, when they replant them ; but then we lose two Years Fruit, and the Trees are apt to grow gummy. But I leave that to the Pleasure of those who practise it, whether they will want Fruit two Years, and suffer an irregular Appearance, or chuse a fashionable Head without Fruit.

If I was to plant all the Sorts of Cherries upon a Wall, the little *May* Cherry should be one, for the sake of its forward Fruit, and particularly I would have it in the best Exposure, that is, against a full *South* Wall ; and then one should have all the sorts of Dukes, and the Black Hearts of every Kind. But the Morello will be larger against a *North* Wall, than in any other Place, and so indeed would be every other sort of Fruit of that kind ; but they would not be ripe early enough, nor have the fine Taste expected in them.

When the Morello Cherry is in Standards or Espaliers, they are small in comparison with those on the *North* Walls ; for Shade will make every Fruit large, as sure as Sun will make every Fruit ripe. So whether we will have large Fruit imperfect

in its Flavour, or small Fruit well tasted, depends upon the Minds of the Planters.

It is necessary to observe, that if we prune Cherries in *May*, in their young Shoots, down to four or five Buds, they will make Shoots that will blossom at the End of the Year; and I have heard, that if one cuts down Cherry-Trees to the same Point in *April*, when they are opening their Blossoms, they will bring good Fruit in *September*; especially such as are against Walls: for some Gentlemen of my Acquaintance, who are extremely Curious in those Things, have try'd the Experiment many Times; one at *Windsor* in *Surrey*, and another in *Middlesex*, where the *Morello*, and *Flemish* or *Kentish* Cherries, have blossom'd in *August*, and have had good Fruit in the End of *September* or *October*.

This cross cutting of Cherries, would be very amusing and pleasant to the Curious Gentlemen in Gardening, to have, in (what one may call) a natural way, Cherries so late in the Year; and one might have any other Fruit to blossom and bear Fruit by the same manner of cutting; but then we shall want Sun to ripen them: And if we stop the Blossoms of the Strawberry, and take them quite off as soon as we see them bud in the Spring, they will blossom again at the latter End of the Year, and bear good Fruit, and in good Quantity; but

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while I make this Comparifon, I ought to take notice, that the Cherry is a Tree, and the Strawberry an Herb ; but as they are both Plants, Nature gives them the fame Intent, as much as their feveral Powers give them Leave.

The Cherry is a Tree, which aims at bringing its Fruit in *May* or *June*, and the Strawberry in the fame Month ; but they both from their Blossom will ripen their Fruits in fix Weeks, without forcing by artificial Heats. However, if we stop the Progress of their Blossom in the Spring, by cutting, they will certainly have it in the Autumn, and according to the time of the Growth and Ripening the Fruit of both of them, they will bring good Fruit in Autumn ; but this will spoil a Cherry-Tree in a few Years, for it gives but weak Shoots at the latter End of the Year, in comparifon with thofe, which it would give voluntarily in *May*.

Memorandums concerning Vines in Espaliers, or againſt Walls.

MY particular Obfervations of Vines, amount to this extraordinary Direction, *viz.* That if we have Vines in Espaliers, or againſt Walls, we muſt always expect the young Wood or Shoots to bear Fruit ; for 'tis from the young Wood only, that we

have Shoots that bear Grapes. I mean by the Shoots which we ought to preserve, such as have shot the last Summer ; and of those in an irregular Vine, save the Strongest, in which you will see two sorts of Buds and Joints. In one part, the Buds will lie pretty near one another ; and in the other, for three or four Joints beyond them, the Buds will be set at long distances ; and these last will not bear Fruit till the second Year. Beyond these again, we may find the Joints shorter for three or four Buds, which Buds will bring Fruit the same Year. One of my Acquaintance, had a Shoot of this sort, which he carry'd along a Wall near twenty Foot, and it brought plenty of Grapes ; and one may remark likewise, that the Shoot of this Vine had its bearing Branches proceeding from the long Shoot of the Year before, in the Manner I have related, that is, the short Joints in the Branch, had Buds for Fruit-bearing ; and the longer Joints brought good Shoots for bearing Branches the Year following : and then after four or five of them came Buds for Fruit, bearing again at short Distances from one another, not above four Inches, while the others, which did not bear, were six or seven Inches asunder.

We have some Vines, which are much stronger Shooters than others ; the largest may be as thick as one's Thumb, while the smaller Shooters will bring their best Branches
not

not thicker than a Tobacco-pipe. In the common pruning of these Shoots, they ought to be left long in proportion to their Thickness: But that a Stranger to this Business, may be sure to judge of the right Proportion, let him leave so much of each Shoot upon the Tree, as has its Joints short and the Buds full, which will be about four or five; and then the Branch so pruned on the white Frontiniack Grape, which is a large Shooter, will be about two Foot and a half long; and of one of the smaller Shooters, a Branch well pruned will be about fourteen or fifteen Inches. As for the smaller Shoots of Vines, such as are but nine or ten Inches long, cut them clean away, and when your Vine is pruned, tie the new Branches design'd for Fruit to the Espalier horizontally, and keep them as near the Ground as possible; and so treat your Vines in the same manner against a Wall; and even those Vines in a Vineyard, must have the same Treatment with regard to pruning, and the pruned Shoots ty'd down to Stakes near the Ground.

But there is one thing more I must observe, with regard to bringing Grapes forwarder than the natural Season in *England* will do.

When I liv'd at *Tibbalds* in *Hertfordshire*, about five and thirty Years ago, there was a Vine planted against the Kitchen Chimney,

ney, which by the Heat of the Kitchen-fire, began to shoot about *Christmas*, and then a Frame was put up before it, to preserve the tender Shoots from the frosty Air abroad, till the Weather grew mild and gentle ; by this means, Grapes were full ripe in *May*, and the Branches were so large, that one of them fill'd a Pottle Basket, and was presented to King *William*: since which Time, it is commonly treated in the same Manner, and brings Grapes as it did in my Time, as I am inform'd by several Gentlemen, who have been there lately : and I suppose all the new Inventions for forcing of Grapes, were taken from the Vine at *Tibbalds*.

Curious Remarks of Currans and Gooseberries.

THE Curran, tho' it generally appears to be a Shrub, is capable of making a large Tree, even to grow above twenty Foot high, as there are some now in several Curious Gardens in the Country, which cover the side of an House, and produce vast Quantities of Fruit, which last to *October*. One of these Trees is at *Cambridge*, in the Garden belonging to Mr. *Urlin*, a curious Gentleman living in the *Petty Curée*, where it is common for his Servants to gather Currans with a Ladder : The Stem of this Tree, is very Strong and Woody, so that I am per-

persuaded, one might, with a little Pains, make a noble Standard of it in a Garden, which would make an extraordinary Appearance; and as it is certain, that it will grow so High, it would as surely make very good Arbours.

This Tree or Bush, as it is often managed, has its Fruit spoil'd; for when the Fruit is set and near grown, 'tis a Custom to cut off the Tops close to the Fruit-bearing Shoot, and so the Fruit becomes small and thick-skinn'd; and the Tree will then grow Weak and turn Mofsey. All the Design such Pruners can have, is, I suppose, to make the Fruit ripen early; but the Tree is endanger'd by it.

The Goosberry, tho' it is a Shrub, may be raised to a Tree of twelve Foot high; if one would encourage the leading Shoot, as I have mention'd before of the Curran: but it must be supported by a Stake, and when we once let it shoot or spread for a Head, never cut it, but let all the Shoots on the Top spread freely. It is not uncommon to see Goosberries ty'd against the Wall of an old House, which make a Covering of eight or nine Foot.

These *Memorandums* are, what I am persuaded few have thought on; and as for the Treatment of these Fruits in general, every one knows: So that I shall now proceed

ceed to give my Observations on Standards, and Half-Standards.

Remarks concerning Standards and Half-Standards.

STANDARD-Trees are chiefly Apples and Pears, and Cherries; the first loves a tender Soil, and the latter chuses a stiff Soil: the Apple-Tree will soon spread its Branches, as near the Ground as we will suffer it; but the Pear will mount to a great Height. To plant Apples in an Orchard, they should not be nearer one another, than five and twenty or thirty Foot, that they may spread their Branches freely, and have Air enough about each Tree, to fill the Fruit, and that as many Branches as possible may enjoy the Sun.

Pears to be planted in Standards, may be set at twenty Foot distance, because as they are given to mount or shoot upright; they want less room for the spreading of their Branches, than the Apple.

Either of these Trees, however, will in time want Pruning, not that their Shoots should be topt; but if they are luxuriant in their Growth, they will become too full of Branches, and the Fruit grow small: therefore, when we observe this, thin the Tree in *November* and *December*, by cutting out such as may hinder the free passage
of

of the Air, taking care to cut them clean by the Stem ; and again, when we see young Shoots rising upright from the spreading Boughs, cut them close down, for they draw away abundance of the Sap, that ought to go to the Nourishment of the Fruit.

If either your Standard Apples or Pears, grow so Luxuriant, that they don't bear well, open the Ground about them, at the end of *January* or beginning of *February*, as the Weather happens to be favourable, and cut off some of the main Roots ; and they will soon come to bearing : or else treat them as I have directed in the Article of Dwarf Apples and Pears.

As for Standard Plumbs and Cherries, they want no Pruning after they begin to grow, for they hate the Knife ; tho' such of them, as we think proper to forward, by planting against Walls, are forced to undergo the Discipline of Pruning ; but the less they are prun'd, the longer such Trees will last.

Observations concerning Half-Standards.

WHAT we call Half-Standards, I have explain'd before ; and of these, the Peach, the Plumb, the *Bruxelles-Abricot*, and the Cherry, are the chief : for Apples and Pears will run out of compass.

These ought, when we plant them in Borders or Beds, to stand fifteen Feet asunder ; that the Flowers or Plants under them, may have Air and Sun. As to their pruning, it is like that of the Standard, ; but when these attempt to grow high, cut close down some of the most aspiring Branches, and cut some others within four Buds of the main Branch, by which Means, the Deficiency of the lost Branches, will be made up the same Year.

Of the Marks, by which one may know the bearing Buds, on all Fruit-bearing Trees of our Gardens.

AS I have given a View of such Improvements of the Fruit-Garden, as are New, and have not been yet deliver'd to the Publick ; I shall conclude my Remarks with Observations relating to the Difference between Fruit-bearing Buds, and those Buds which are design'd for making of Shoots. As a general Rule, those Buds which are the most turgid or full, and the roundest, are the bearing Buds, and the longer Buds which are generally pointed, are the Buds for making of Shoots.

The Pear most commonly has Wood of two Years, before we can find bearing Buds upon it ; which distinguish themselves, by shewing themselves much larger than

than the others, and rising upon little Woody Knots.

Apples distinguish their bearing Buds, in the same manner as Pears.

The bearing Buds of Plumbs, are of an oval figure or roundish, and the shooting Buds are pointed.

The Buds of Cherries, in the *May Cherry*, the *Flemish*, the *Kentish*, and *Morello*, when they are for bearing, are round Buds; but those that are pointed are Buds for shooting: but the Heart-Cherries will bring bearing Buds in Clusters, and so will the Dukes; however, those Buds in Clusters are rounder than the others.

Peaches have triple Buds, that is, the middle is a Shooter, and the others on each side are for Blossom; the middle one is pointed, and the side one's rounder: however, the Midsummer before they blow, you may know them.

The Abricot is much like the Peach, and therefore when any one would prune a Tree, let him peruse these Observations, and he will know the better which Parts ought to be cut, and which should be left.

As to Vines, I have pointed out which are the bearing Shoots, and which are not; so that I think it impossible for a Stranger to miss of Fruit enough if the Season is favourable, when the several Sorts of Fruits are in Blossom.

Now I have gone thus far, it is necessary to give some Directions concerning the enriching our Country with Plants and other Curiosities from Foreign Parts, that *Great-Britain*, if possible, may possess the Beauties and other Benefits of the whole World.

On this Occasion, I cannot omit mentioning, how much the Improvement of our *English* Gardens is owing to the Care and Industry of the late Dr. *Compton*, Bishop of *London*; the late Dutchess of *Beaufort*, in the Gardens at *Badminton*; *Samuel Reynardson* Esq; at *Hillingdon*; Dr. *Udall*, at *Enfield*, *William Curtis* Esq; Sir *Charles Wager*, Mr. Secretary *Johnston*, *Henry Marsh* Esq; Sir *Matthew Decker*, the Honourable and Reverend Dr. *Lumley Lloyd*, *Charles Du Bois* Esq; *John Brownell* Esq; in *Cambridgeshire*; the Right Honourable Sir *Robert Walpole*, Mr. *John Warner*, Mr. *Peter Collinson*, Dr. *Sherrard*, Dr. *Bradley*, the Right Honourable the Earl of *Burlington*, *Samuel Trowell* Esq; the Right Honourable the Earl of *Derby*, with many other curious Gentlemen, who, by their Correspondence, have furnish'd us with vast Varieties from most Quarters of the Earth, as well as given us many useful things, which, perhaps, without them would have never appear'd in our Climate; but especially the
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good Judgment and Skill in collecting Rarities abroad, is remarkable in the Reverend Mr. *John Clarke*, who is just return'd from his Travels, about *Virginia, Carolina, the Maderas*, and other parts of *America*; there is scarce a Plant that has escaped him, or a Bird, Fish, Quadruped, or Insect, that he has not taken cognizance of: so that from his remarkable Collection, one may be fully acquainted with the Use and Beauty of every thing in the Countries where he has been.

His Method of Collecting the Plants, is so good, that it may serve as a Pattern to those Gentlemen who like that Study, when they trace other Parts of the World.

First, this Gentleman has been careful to dry Specimens of every sort of Plant he could find, with the Flowers; remarking which grew on hilly Ground, which upon the Plain, and which in Swamps or Boggs; likewise, he has observed the several Scituations of the Plants he gather'd, and has been as exact in remarking the several kinds of Soil they respectively grew in; whether they were Sandy, Gravelly, or inclined to Loam or Clay.

In the next place, when he gather'd the Seeds and Fruits, he was no less careful in setting down the Time of their Ripening, but chiefly was Curious in Learning from the *Indians*, and the Inhabitants, the Use of every

every Plant he collected, whether in Medicine, or for Diet, or for Dying or Staining of Colours, or for Fodder for Cattle, or for Timber. By which Method, we have not only by the Care of this worthy Gentleman, the Seeds of great Numbers of Curiosities brought over to us, which will agree well with our Climate; but when they grow with us, we shall be able to apply them to such Uses as may prove very beneficial to us.

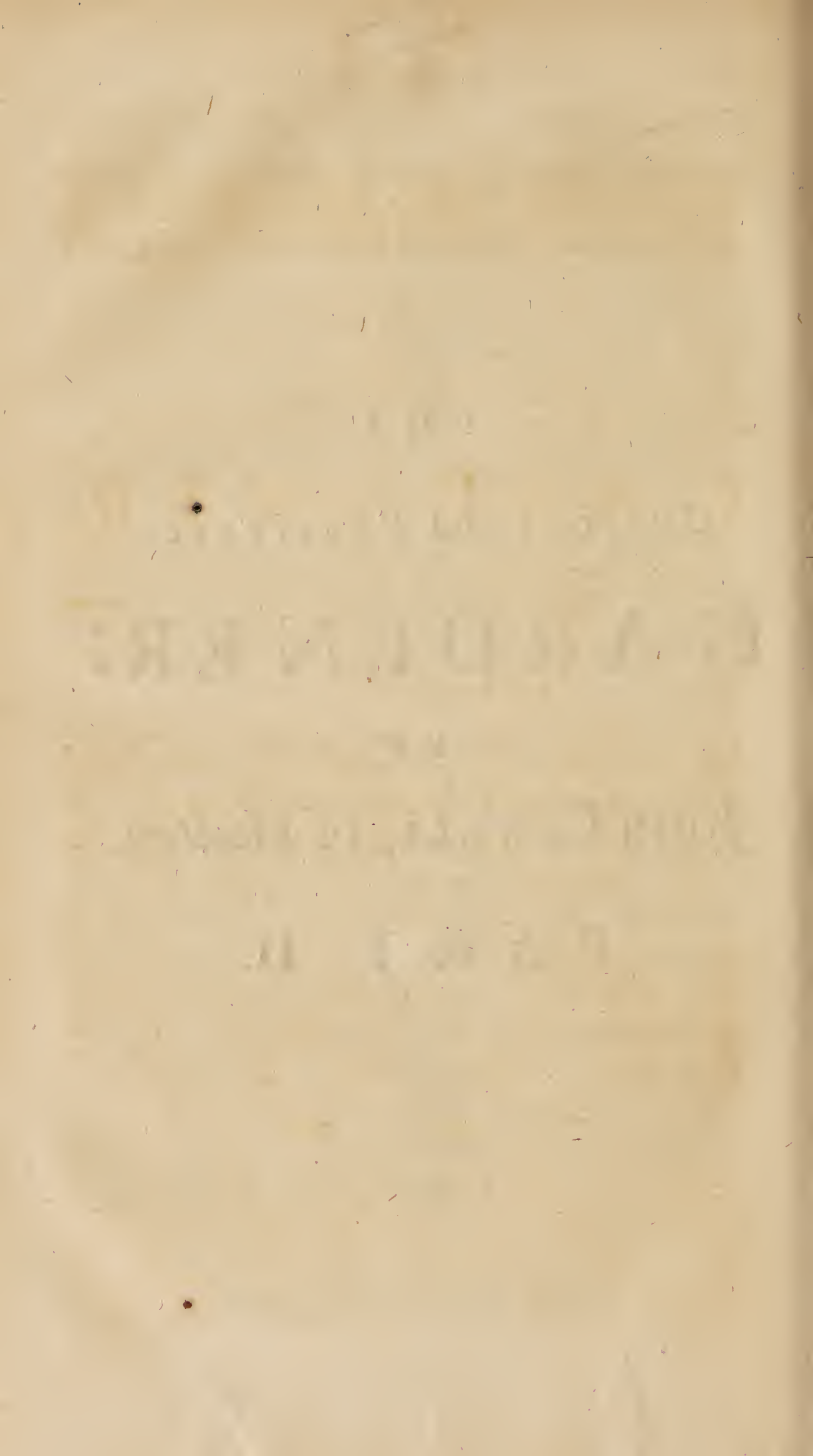
Again, it is observable, that the great Varieties of Seeds and Fruits which he has brought over, were in their natural Cases and Husks, so that they have not suffer'd by the Sea-Air in their Passage, but grow freely with us; which, had they been discharg'd of their Husks or Cases before he had left the Country, they would without doubt have been so subject to the Sea-Air, that many of them would have corrupted, as it is commonly the Case with these Seeds brought from Abroad, without this Care. Therefore it is, that I advise every Curious Traveller to follow the above Directions; that such Collections as happen to be brought over, may not only prove delightful to the Sight, but be render'd some way or other of Service to the Publick.

The End of the First Part.

THE
CURIOUS and PROFITABLE
GARDENER:

BY
JOHN COWELL, of *Hoxton*.

PART II.





T H E
CURIOUS and PROFITABLE
GARDENER.

C H A P. I.

*Concerning the Aloe Americana, Folio
in Longum Aculeum abeunte, of
C. B. or great American Aloe of
R. B. Dec. II. p. I.*

TH E R E have been so many different Accounts publish'd, of the Curiosities which blossom'd in my Garden, that a Stranger cannot be certain which of them is the best, or whether any of them are true. I am therefore desired to publish my own Account of the Aloe and Torch-Thistle, as they really appeared, and give the History of them, as I have received from several Gentlemen

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tllemen of the Royal Society, and other Persons of Honour, as well as the Account I have receiv'd from a learned Gentleman of *Oxford*, relating to the *Glastonbury* Thorn, which is now in full Bud and green Leaf, flourishing as the common Thorn does in *April*.

I confefs I had not time till now to set down to write, and put my Memorandums together, having been employed in designing Plans for Gardens, and laying out Grounds for Gentlemen; but as I am now favour'd with a Day or two's Leisure, I shall give the Account as follows, beginning with the Great Aloe.

Of the large common American Aloe, called by Casper Bauhine, Aloe Americana, Folio in Longum Aculeum abeunte; or by Dr. Bradley, Common American Aloe, Dec. II.
p. 1.

THIS Plant has been of a long Date known in *England*; even *Parkinson*, in his Theatre of Plants, takes notice of it, who wrote in the Reigns of Queen *Elizabeth* and King *James* the First.

The first that was brought into this Country came with Sir *Walter - Raleigh*, and Sir *Henry Carew*, who likewise were the first Gentlemen who made Tobacco, and the Orange-Tree familiar to us.

At *Bedington* in *Surrey*, we see the Orange-Trees that were the first of the sort, and planted in the Natural Ground, with a cased Greenhouse, to be put up over them in the Winter Season. They are much the largest with us, and shoot very vigorously every Year, above three times as much as those which we cultivate in Pots or Cases.

These Plants, as well the Orange-Trees as the Aloe, were, at their first arrival, put into a Pit, and covered in the Winter with Boards, as the late Sir *Nicholas Carew* told a Gentleman of my Acquaintance.

So long ago has the Great *American Aloe* been in *England*; and when we receive it under the Name of the *Persian Aloe*, it is to be understood, that a Society of Florists named it so, according to their wonted Custom in giving Names to every extraordinary Flower that is produced; and moreover as it was esteemed a great Curiosity, in one of the Noble Gardens of *Persia*, as some Merchants of good Credit assure us, it was thought as proper as any Name one might give an *Auricula* or a *Carnation*; such as the *Glory of Hoxton*, the *Glory of Reading*, the *Glory of Windsor*, and such like.

Another Set of curious Men compared its Figure to *Moses's Candlestick*, as it is represented in the *Jewish History* by *Josephus*; or the famous branch'd *Candlestick*, represented in the Draught of the Temple of *Solomon*:

and the Shape of both being so near alike, it was received and allow'd by many Spectators to deserve that Name.

It must however, according to the Botanists, be allowed a Native of *America*, from whence it was first brought to *Europe*; and was so agreeable to the *Spanish* Climate, that it grows there in the Natural Ground, without any Shelter.

From *Spain* it was first brought into *France*, where it blossom'd about fourscore Years ago, as a *French* Author has observ'd; he says, that the Plant call'd the *American* Aloe, was about 100 years old when it blow'd, and as a Friend of mine, who gives me his Account, takes notice, that *French* Author gave occasion to the common Opinion, that the Aloe at the time of opening its Blossom made a Report as loud as a Cannon; but the Mistake was by the Translator, who explained the Words—*La Plante faisoit une si grande bruit*, &c. which my Author says ought to be English'd, That the Plant made so great a *Noise* when it flower'd, that its Fame was spread over the whole Kingdom. This Construction is allow'd by the Critics to be good, since the blowing of my Aloe has drawn so many thousand Persons to see it from all Parts of the Kingdom, and even from Foreign Countries, as well as the Compliments it has been paid by the *French* and *Dutch* News-Writers; which, by the best Accounts,

Accounts, proves to be the same with that which flower'd in *France*, and of which kind also were those which blossom'd in the Garden of Mr. *Versprit* at *Lambeth*; the Gardens belonging to Prince *Eugene* near *Vienna*; the Garden belonging to his Grace of *Buckingham*, near *St. James's Park*, and two others that flower'd in the Royal Gardens at *Hampton Court*.

The Aloe in Mr. *Versprit's* Garden at *Lambeth* was, as I am inform'd, the first that attempted to blossom in *England*, and is said to come from one of those that were brought hither in Sir *Walter Raleigh's* Time; so that it might perhaps be a hundred years old when it push'd forth its Flower-Stalk, which was in the Reign of King *William III*. The Account I have of this Plant is, that it shot forth a long and large Stem about *August*, which branch'd like a Tree, and every Branch contain'd a large Cluster of Blossoms and Buds. The Season of the Year being towards a Time when Exotick Plants required Housing, made Mr. *Versprit* build a Glass Case on purpose for its Shelter; but either through the Fault of the Workmen, or the extraordinary high Winds which follow'd, the Glass Case was blown down, and the Flowering-Stem of the Plant broken from the Root. I must however take notice, that it was the extraordinary shooting of the Flowering-Stem, and the great Height it arrived to, made Mr. *Versprit*

sprit build a Shelter on purpose for it, because his Conservatory would not hold it, as it then proceeded in Growth.

King *William* and Queen *Mary*, who cultivated the most Curious of Exotick Plants and Flowers in *England*, order'd a Draught to be taken by Mr. *Bogdane*, a famous Painter; some of which Branches painted, are now in one of the Royal Palaces.

The Traditional Account of Mr. *Ver-sprit's* Aloe, is, that it was in its Stem about eighteen or twenty Feet high. The next Aloes which appear'd among us in Flower, were the two at the Royal Gardens in *Hampton-Court*, which came from the same Breed as the former; when these flower'd, they were in extraordinary Strength, even so great, that one of them brought five, and the other seven Stems of Flowers: every Stem branched like a regular Tree, and each Branch was loaded with Blossoms, which, as Dr. *Bradley* says, dropt Honey in abundance from every Flower. He further relates, that they lasted the greatest part of the Winter in blossom, though they were not housed; and even the Spring following attempted to make new Branches, though the Plants in their Leaves began to rot towards their Roots, and in their decaying State were thrown into the *Thames*; so that we do not certainly know what Appearance they would have made the Summer following. The

tallest of their Stems was about seventeen or eighteen Foot high, and the Leaves about five Foot long each, or rather more. Dr. *Bradley* told me, that the Aloes at *Hampton-Court* shot in their Stems about six or seven Inches a Day ; but would have me make this difference between this Sort and the *Aloe Sobolifera* of Dr. *Comelin*, that the great *American Aloe* has Leaves of four or five Foot long, and the *Sobolifera* has Leaves of about a Foot in length at most.

It is remarkable also, that a young Plant of the great *American Aloe* is so like in Colour and Shape of the Leaf with that call'd the *Aloe Sobolifera*, that it must be a nice Judge to distinguish one sort from the other. But we must observe, that the *Aloe Sobolifera* blossoms in nine or ten Years from a small Offsett, and yet the Flower-Stem rises near fifteen Foot in height, and brings Branches and Flowers nearly the same with those of the great *American Aloe* ; but with this remarkable Difference, that the *Sobolifera* has Clusters of young Plants or Setts mingled with the Flowers : so that when the *Sobolifera* blossom'd in the Stove in *Hampton-Court*, which was about two Years after the great Aloes blossom'd, it was computed that there were not fewer than a thousand young Plants mix'd with the Clusters of Flowers. The Flowers of this are of the same Colour with those of the great Sort ; and the Flower-

Stem

Stem is near as big in one Sort as in the other ; and is so quick in its growth, that by measure, it shot seventeen Inches high in Twenty-four Hours: but it had the assistance of a Stove, being a very tender Plant ; while the great one is so hardy, that one of them has stood abroad several Years in the Garden of *Charles Dubois Esq*; at *Mitcham* in *Surrey*.

I mention this, because I apprehend that these two Sorts being so like in many Particulars, has confounded some Strangers in their Judgment of my Aloe, and that which blossom'd in the King of *Prussia's* Garden ; or has caus'd the two Kinds that blossom'd at *Hampton-Court*, to be mistaken one for the other.

In the Year 1716, one of the large Sort of *American Aloes*, as *Dr. Bradley* informs me by Letter, blossom'd in his Grace of *Buckinghamshire's* Garden in *St. James's Park* ; but this had only a single Stem about sixteen or seventeen Feet high, branch'd like a regular Tree, and bearing such Flowers as the two great Aloes did at *Hampton-Court* ; but the Plant stood abroad, and died the same Winter.

A few Years after this, a Plant of the same Aloe blossom'd in the Gardens of Prince *Eugene*, near *Vienna*, which was strong enough to bring several Flower-Stems, adorn'd with Branches and Flowers like those at *Hampton-Court*. It was computed to be near a hundred

hundred Years old, and was accounted so extraordinary in its kind, that its Fame soon spread over *Europe*, the foreign News-Papers being fill'd with Encomiums of its Grandeur and Beauty.

About five or six Years ago, there was another attempted to blossom in the Right Honourable the Earl of *Castlemain's* fine Gardens at *Wansted* in *Essex*, but was unfortunately blown down several times by high Winds, which broke and bruised the Plant so much, that it did not live to blossom in its full Vigour, and make that fine Appearance which Nature had design'd it for. When that Plant decay'd, there were no more than nine Branches upon the Stem.

At length my own great Aloe began to open its Crown for flowering; that is, its central Leaf, or middle Spire, as some Gardeners call it, began to split and crack, and the Centre of the whole Plant swell'd to a great degree towards the Spring of the Year 1729. And about the beginning of *June* following, the pointed Leaf in the middle of the Plant quite open'd it self, and smaller Leaves appear'd, to the number of six or seven, which is a certain Mark of flowering; for this was observ'd on the 8th of *June*, and the Blossom-bud, or Stem bud appear'd above the Plant on the 10th of the same Month.

The Bud appear'd at its first shooting like the Bud of an Asparagus, about thir-

teen or fourteen Inches in Circumference, and rose gradually higher and higher, growing about seven Inches taller every Day at first, and afterwards about five or six Inches in a Day; decreasing still in its growth, as it arriv'd nearer to its intended Height; spreading into Branches as the Stem mounted, till the whole of the Flowering-Stem was twenty Feet high, and seventeen Inches in Circumference at the bottom.

This surprizing Growth of the Flower-Stem, and its Branches, was performed in about seventeen Weeks, and then was at a seeming Stand for about three Weeks more, while the Flower-buds were forming themselves for Blossom.

The number of Branches spreading from this Stem were thirty, so gracefully disposed, as to form the Figure of a Pyramid; at the End of each Branch was a Cluster of Flowers, to the number of about a hundred and ten; so that by computation, the Plant had not fewer Blossoms upon it than three thousand three hundred.

The length of each Flower, perfectly blown, was about three Inches, the bottom green, and the upper part yellowish; from the Centre of each Flower proceeded a *Pistillum* about two Inches long, encompass'd by six *Stamina* and *Apices*, which projected about an Inch above the Flower. The *Apices*, when they open, are cover'd with a Dust much

much yellower than the Colour of the Flower-Leaves ; each Flower contain'd near a Teaspoonful of sweet Juice, like Honey, which rise in so great quantity, as to overflow between the Petals or divided Leaf of the Flower.

I saved some of this Liqueur in a Phial, which in a few Days became as foetid to the Smell, as the Liqueur fresh gathered was sweet to the Taste. The Seed-Pods are at present about two Inches long, very green on the outside, and the Ovaries within them, like those in the *Pistillum* of the Tulip. I expect, if the Season does not prove too severe, that I shall have several of the Pods ripen with me by *May* next.

In the mean while, it may be expected that I inform the Reader a little of the History of my Aloe, and give some Account of the Culture of it, which has happen'd to be somewhat extraordinary.

Parkinson, in his *Theatrum Botanicum*, speaking of the great *American Aloe*, tells us, that it bears large long Leaves of a pale green Colour, whereon is to be seen an Eye of blue or ash-colour, being of the length of a Man, and of two or three Fingers thickness in the main Parts, and dented about the Edges, where they are thinnest, with hard sharp Teeth or Thorns, and ending in a hard, round, and large blackish Thorn, as big as a Falcon's Claw or Talon. Which

Leaves are round on the under Side, and channel'd or made hollow like a Gutter on the upper Side, and at the bottom encompass one another. In the middle of these Leaves, after a long time abiding, riseth a strong, great, spongy Stalk, of the bigness of a Man's Arm, with a few small dry and brownish Leaves sparsedly set thereon, and of the length of an Horseman's Staff in some places, but rising higher than two Spears length in others: As at *Avignon*, where it is reported, that within the space of forty-five Days, the green Stem or Flower-Stalk grew to the height of twenty-two Hands breadth; and at the Grand Duke of *Florence's* Garden about twelve Cubits length; and at *Rome* fifteen Cubits high, branched almost from the middle to the top into divers Branches, and each of them again into others; the great Branch standing out for a good space, and then turning upwards: On each whereof are set a good number of Flowers, even two or three hundred; being no other than long and large three-square hard and green Husks, thrusting out six great yellow hard and crooked Threads, tipt at the top with yellow Pendants; and in the middle, amongst them, another yellow round-headed Poin-tel. These Flowers are of a whitish or yellowish green Colour, and somewhat of a sweet Scent. The Husks that bear the Flowers, after they are dry, become the

Seed-

Seed-Vessels ; which being ripe, are divided into three Parts or Cells, each containing a-bundance of Seed.

He further adds, that the Inhabitants of *Mexico*, where this Plant grows common, make many considerable Uses of it ; *viz.* That the mighty tall and strong Flower-Stalks, being dried, serve for Fuel to burn, as well as the Leaves when they are dry. The hollow or channell'd Leaves of this Plant serve them instead of Tiles to cover their Houses, and shelter them from Rain ; which they can so well dispose, that no other thing with them there can better perform that Office. Moreover, he tells us, that the Priests and Painters of those Countries, use the Leaves to write and draw Figures upon, instead of Paper ; which may well enough be done, while the Leaves are green, with a Pin or fine Needle, or with one of the sharp Thorns growing at the Ends of the Leaves ; which Spines are so sharp-pointed and strong, that they are used as Awles to make holes with in such Bodies as are hard Substances ; and that the Threads in the Leaf are strong and useful to tie any thing with ; and being spun, will make as strong Thread as any Hemp can make.

Clusius informs us, that while he was resident at *Seville* in *Spain*, his Landlord's Daughter shew'd him Cloth made of the Threads of this Aloe, which she had wrought
into

into Shirts ; but when the Strings of the Leaves were coarser drest, they were platted together and made into Sandals, and also into Ropes and Cordage, and likewise into Matts for Floors to walk upon, and into short coarse Garments for Sailors, and such like, who are much exposed to the Weather.

Mr. *Darby*, my Predecessor, a famous Gardener, noted for one of the first in *England* who chose the Culture of Exotic Plants, bought this Aloe of Mr. *Verspritt* of *Lambeth* ; which was then of a considerable Size, as he said to several of my Friends. He had it in the Garden where I now live about thirty-six Years, for he lived so long in *Hoxton*, at the Place which I now possess, and has affirmed it was the first curious Exotic Plant he ever had : One may therefore reasonably conjecture he had it soon after his coming to the Place. Another Person, after Mr. *Darby*'s death, possess'd the House about four Years ; and then I bought the Lease, and the whole Stock of Plants, which I have enjoy'd above twelve Years. So that in all, one may compute the Plant, when Mr. *Darby* bought it, about twenty Years old, as he himself used to guess : It was in Mr. *Darby*'s hands about thirty-six Years, and about four Years in the hands of another Person after his death ; which, with twelve Years I have had it in my possession, amounts to seventy-two Years.

But

But I cannot pass by observing a piece of extraordinary Management I had with it about five Years ago; when, by some accidental Bruise in the Shank of the Plant, the main Trunk of the Aloe, or, as one may call it, the Body of the Plant, between the Root and the Leaves, began to rot on one Side, and continued so to do till there was little room left of saving it. I then cut the Plant clear from the Root, and cut clean off the rotten part, laying the Aloe to dry in the Sun, that the Wound might heal and dry before I replanted it in the Earth. I prepared in the mean time some fine, free and rich dry Earth, into which I put the Aloe, and in a Month or two my Plant had shot Roots that almost fill'd the Tub; and from that time it began to grow vigorously, till at length it came to produce the Blossom I have describ'd. But I am apt to believe, if my Plant had not been hurt, and I had not been obliged to have separated it from the main Root, I should have had the pleasure of observing the Flower-Stem at least 30 Foot high, or should have had as many Flower-Stems, as appear'd upon one of the Plants at *Hampton-Court*. Thus far I have to say of my Aloe, unless I may add, that the fine striped Aloe, which we have in two or three curious Gardens in *England*, is of the same kind with the great *American Aloe*; for I am inform'd, that the first Aloe with variegated Leaves, was
taken

taken from a large Plant of the plain sort, which run striped, in the *Heer Beaumont's* Garden at the *Hague*: And Dr. *Bradley* informs me, that in the Year 1714, it was esteem'd there at 500 Guilders Price; which, for that reason, I have had it engraved, as a Companion to my large Aloe.

I am desir'd still to make one Remark more, with respect to the Care I took of my Aloe when I perceived it coming to flower; I erected a Frame with Glass in the Front towards the *South*, keeping it open at the top till the Flower Stem grew above it, and then rais'd my Building a Story higher; and as the Plant grew taller, continued to raise my Fabrick, till I perceived it was at its full Height, and then covered it in. I believe I may venture to say, that by this Method of proceeding, the Flower-Stem was some Feet higher than it would have been, had I left it expos'd to the open Air, as those were which I have mention'd in the Duke of *Buckingham's* Gardens, and at the Earl of *Castlemain's*; for if we have a mind to draw the Flowering-Stem of any Plant in an extraordinary manner, we must confine the ambient Air from the Sides of the Stem, and let the Top of the Plant meet the open Air: which is the way we should use in drawing the *Campanula* or *Amaranths* to an Height extraordinary. But I shall now proceed to relate the several Particulars, with regard to the

use which is made of this sort of Aloe in the Country where it naturally grows.

The Leaf of the Plant is so sharp-pointed at the Extremity, and so full of Spines on the Edges, together with an uncommon strength in it, that in the *West-Indies* this Aloe is planted by way of Fence; and is so rude in its growth, that neither Man, nor Horse, nor any Wild Beast, can pass thro' or penetrate.

In a Climate so favourable as that is, where they are generally used in this manner, there is a continued Summer, which makes them grow as much in one Year, as the same Plant will do with us in ten, as several Gentlemen of great Worth have assured me; and it is not unreasonable to think so, since a Peach-tree, from a Stone planted there, will bear Fruit the second Year after setting or sowing: and even in *Italy*, which is not so warm a Climate as where our Aloe naturally grows, a Peach-tree sent from *England* has grown twenty Foot high in one Year. Which shews how much the Plants differ in several Climates; and particularly this is mentioned, because some Merchants have affirmed, that in *Peru*, *Mexico*, *Brazil*, and some other Parts adjacent, the great Aloe blossoms in ten or twelve Years: but I suppose that these Plantations of Aloes might be made at different times, and so might produce Flowering-Stems from Year to Year, according to their growth or length of Life.

But it is said, the *Aloe Sobolifera*, which I have mentioned before, is that Sort which comes from *Mexico*, and the hotter Climes ; and it may not be unlikely that it may grow there, as well as our common Aloe, and then may, every now and then, be intermix'd with the others in Plantations. But we well know, from the best Travellers, that the great *American Aloe* grows not only on the *Mexican Side*, but in the more Northern and Southern Climates, where the Temper of Air is very moderate in its Degree, and where the Climate is subject to hard Weather in the Winter. This, I say, may have caused some Dispute among the Judges that have taken my Aloe under their Consideration.

But as I am now going to speak of another Use which the great *American Aloe* is put to abroad, any one may judge, when they hear the traditional Account of the Aloe, that the great sort was *Adam's Needle and Thread*, it must be of a very different sort from the *Aloe Sobolifera*. 'Tis indeed not a little merry to hear what is got into some People's heads about it, *viz.* that because it has a sharp Point at the End of the Leaf, and has fine Strings join'd to that Point, which run the whole length of the Leaf, it might serve, before Needles were invented, to sew the Fig-Leaves together; but the *Sobolifera* kind of Aloe has not this Excellence in it, but is chiefly

chiefly composed of a pulpy and juicy Body
 As I go along, I may take notice too, that,
 by Tradition, the *Fucca* is called *Adam's*
Needle; and that is an *African* Plant, and
 has not only a sharp-pointed Leaf, but many
 Strings adhering to the Point: and if that
 really was the case, such a Plant might be
 used in *Paradise* on such an occasion; for
 the Learned agree, that *America* was not
 known till *Columbus's* Time, and therefore
 our Aloe could not be known in the first
 Times. But to discharge this Digression, it
 is necessary to give an account further, how
 far useful our *American* Aloe is among the
 Moderns, with regard to the Silk or Thread
 that is taken from the Leaves.

The Threads which run thro' the Leaves
 are very fine, small, and silken, of a fine
 white Colour, when they are well cleaned,
 so that a fine Point or Lace is made of them;
 and these Strings will bear dying of several
 Colours, as Dr. *Bradley* affirms, who in-
 forms me, that the present King of *Spain*
 had some white and some blue Lace or Point
 sent by one of his Vice-Roys of the *Spanish*
West-Indies, and with these, some of the
 Silk or Thread fit for working; one sort
 of the natural white Colour, and the other
 dy'd blue: Part of which Cargoe his *Spanish*
 Majesty sent as a curious Present to the late
 King of *France*, *Lewis XIV.* which Curi-
 osity the King of *France* was pleased to com-

municate to the Royal Academy of *Paris*, and to his Professor of Botany Dr. *De Jussieu*, who gave Dr. *Bradley* some Specimens of each sort, which he brought into *England*.

Since which time I have got several Purfes made of the same Aloe Thread, artful enough in their Work, tho' made by the *Indians*; and I design to have some curious Pieces wrought from the Threads I have dressed from the Leaves of my own Aloe, according to the Directions I have receiv'd from some Learned Gentlemen, who are acquainted with the genuine Way of preparing it.

The Method abroad of dressing the Leaves for Thread or Silk, is, according to an Account I have from *France*, and some other places, to cut the Leaves their full length, and lay them in Water till the pulpy Part rots, and then with Mallets to beat them, till the rotted spongy Part is quite discharged from the Fibres or Vessels that make the principal Part of the Leaf. But if we beat the Leaf while 'tis fresh, we must wash it in several Pails of Water, during the time it is under that Discipline; for the Juice of it fresh, has little less force than that of *Cantharides*, or *Spanish-Flies*: it will sting the Hands and Face violently, where it happens to light; and was a piece of the fresh Leaf to be apply'd to the Hand or Foot, or any other part of the Body for a little time, it
would

would raise a Blister on the Part where 'twas laid. The Liquor boil'd, as I am told, makes a Lee, or Lixivium, much more penetrating and pungent, than that of the Pot-Ash and Pearl-Ash. And I remember that a Friend of mine, who was indispos'd with an high Fever, was advised by a *West-Indian* Gentleman to apply Pultices made of this Aloe Leaf bruis'd to his Feet and Wrists, and in two days the Pultices raised many small Blisters on the Places where they were apply'd to. The Juice is certainly of a very warm Nature, and will take the Skin off the Flesh, if one applies it for a day or two on any tender Part.

Another Instance I cannot forbear to mention, with regard to the pungent Quality in this Juice, *viz.* that a piece of the Leaf used as one would do a Sponge, or a Wisp of Straw dipt in Lee, (or Lye) will scour Pewter better than any Lee that can be made; but no Person in my own House, could bear the Torment with patience the next Day after their Work.

It would surely be well worth the while of some Chymists to try Experiments with it; for though the Leaves abound in Fibres, yet every Leaf will yield a good Quantity of Juice, sufficient, as I am told by some Gentlemen of *Oxford*, to make any Experiment. They say too, that they believe it may be of use in dissolving of Metals, and likewise that it will make a very strong Caustic, much
more

more fiery than any we have yet in the Shops.

When we dress the Leaves, we shall find the Vessels, which are the Threads or Silk, not only running long-ways from the top Spine to the Root of each Leaf, but are join'd all the way with small Fibres, about an Inch asunder; so that the whole appears like a Casting Net for catching of Fish, spreading, if we lay it out, about a Yard at bottom, and tapers all the way to the sharp Point at the top. One of them I have now by me, prepared in this manner at the desire of some Gentlemen of the Royal-Society, who admire the Doctrine of the Circulation of the Sap; which they say this confirms, by shewing such Vessels as are agreeable to Veins and Arteries in Animal Bodies.

When the Leaf is so far dress'd, a Comb must be used to it, and drawn directly downwards; which will discharge all the straight Strings from the collateral Fibres, and so render them fit for working either Lace or Point. The Work of combing should be often repeated, to make the Strings smooth and clean, and they may then be dy'd of any Colour.

The Strings of this Leaf, when they are more coarsely dress'd, are used to make Cordage and a sort of Pack-thread, which the *Indians* weave into Hamocks, and will bear the Weather much better than Hemp. The

Indians also make Nets of it for taking of Deer, and catching of Fish; and, in short, one may use it for any thing in such ways, where Hemp and Flax are used; only we must observe, that the Works made with this will be stiff, unless they become wet.

These Strings, which are from 3 to 5 or 6 Foot long, are of that Strength, that 'tis with great difficulty one can break one of them; and I conceiv'd therefore, that they would be of great use in angling to fasten Hooks to, and accordingly have had them try'd against the *Indian* Grass, and strongest Horse-Hairs, but neither of them, I find, has half the Strength of the Aloe Silk; and for that reason, I have directed some of the Silk to be dress'd with Hooks, to oblige such Gentlemen as are Lovers of Angling.

I shall conclude my Account of the Aloe, with a Remark or two, concerning a Conjecture which has been given me by a Virtuoso, that my Plant is of the same sort as that which is called the *Tree of Wonders* in *New Spain*. The Account of it which I receiv'd, is taken in part from *Fr. Jos. Acost. Nat. Hist. of the West-Indies, Book IV. Chap. 23. p. 254.* It is said there, "to afford
 " Water, Wine, Oil, Vinegar, Honey, and a
 " *Must* like new Wine; besides Thread,
 " Needles, and many other Things. It is
 " therefore much valu'd in *New-Spain*,
 " where it grows wild, tho' it is also cultivated.
 " The

“ The Leaves of it are broad and coarse,
 “ ending in sharp strong Points, which serve
 “ either to be used as Pins, or to sew with,
 “ as one would do with a Needle. From the
 “ Leaf they draw out Threads, which are
 “ its Fibres. The Trunk or Body of the
 “ Tree, being large when it is young, they
 “ cut a Hollow in it, to which the Sap or
 “ Moisture rises from the Root; and this
 “ they drink instead of Water, being cool
 “ and sweet: but when this Liquor is boil’d,
 “ it becomes like Wine; and letting it sour,
 “ it makes a good Vinegar: but being boil’d
 “ to a Consistence, is sweet like Honey, and
 “ being half boil’d, is like the *Must* above-
 “ mention’d, well tasted and wholesome,
 “ and, in the opinion of the Person who
 “ wrote this, much better than that made
 “ of Grapes. So that according as the Sap of
 “ the Tree is boiled, it produces several Va-
 “ rieties of Liquors, and the Quantity the
 “ Tree yields is great, producing several
 “ Quarts a day for some time.

“ The Wood of the Tree is spongy, and
 “ serves to keep fire a long time, like the
 “ Match used by Soldiers, or Touch-wood.

“ It may well be called the *Tree of Won-*
 “ *ders*, seeing that it produces such a num-
 “ ber of beneficial Things, as Thread and
 “ Cordage, besides the several Drinks men-
 “ tion’d; which are the chief used in *Mexico*,
 “ except those which are brought from *Eu-*
 “ *rope*.

“ The

“ The common Drink is called *Pulque*,
 “ which is as strong as Porters Beer. This
 “ is fermented with ripe small Berries, which
 “ in three or four Days makes it brisk, and
 “ like Whey in colour: it is pleasant to the
 “ Taste, and keeps the *Indians* in health;
 “ and now pays to the Vice-Roy at *Mexico*,
 “ or to his Farmers, about 200,000 Pieces of
 “ Eight, or Forty Thousand Pounds *Sterling*
 “ a Year Excise.

“ This is brought to market in Hog-Skins,
 “ and sold about the Skirts of the City un-
 “ der large square Sheds, where the *Indi-*
 “ *ans*, both Men and Women, daily resort
 “ to drink and be merry.”

Thus far my Author. But the Gentlemen
 who are here from the Royal-Society, and
 both Universities, cannot allow that this is
 the same sort of Plant which blossom'd in
 my Garden. For,

In the *First Place*, this wonderful Plant
 is described to be a Tree, and very large,
 even so great as to yield Fire-wood; while
 my sort of Aloe is an *Herbaceous* Plant,
 growing close to the Ground, without any
 woody Part: and as it dies as soon as it
 has flower'd and produced Seed, can never
 afford any Wood; for it always flowers while
 the Leaves lie close to the Ground.

Secondly, This is not the same sort as my Aloe, because the Juice of the *Tree of Wonders* is wholesome to be drank, and the Juice of my Aloe is almost as corrosive as *Aqua fortis*.

Thirdly, If the Juice of my Aloe could be drawn from it by cutting, or incision, as they do the *Tree of Wonders*, or the *Birch-Tree*, it must have a large Stem or Trunk: but my Aloe has none, no more than any of the same sort.

Fourthly, It is said to produce Oil, which mine does not; nor Vinegar, because my Aloe produces neither Wine nor any Liquor that one can make Vinegar of.

It seems therefore that it is not the same with my Aloe; but at the same time it is very reasonably conjectured, that the Plant meant in the aforesaid History, is what is called the *Cocoa-Tree*, or else the *Wine-bearing-Palm*, or *Palma Vinifera*: for each of these seem to carry Principles with them, which answer the Character in the aforesaid History.

The *Cocoa-Tree* is said by the *Indians* to carry in it Meat, Drink, and Cloth. When I speak of this, I do not mean the *Cocoa* which produces the Seeds or Nuts that
 I they

they make Chocolate of; but the large Nut-bearing Tree, which has a Nut so big, that a Quart of milky Liquor is contain'd in the Shell, besides the Kernel or Nut itself. The Liquor is sweet, fresh, and pleasant, and the Nut good wholesome Diet. The outside of the Shell of the Nut is cover'd with Strings of a brownish Colour, which one might weave into Cloths: But far more than this, the Leaves and Stem, or Trunk of the Plant, which grow to a vast Magnitude, afford Threads enough to clothe many more Men, than the Kernels, or Nuts, or Liquor can maintain.

The Leaves are likewise so full of Fibres, or Threads, that there is hardly any Pulp in them; and every Division of a Leaf affords a sharp Point at the Extremity, so that they may well enough serve as Needles and Thread.

The whole Bark and most woody Part consists of Vessels or Strings; which, being combin'd, make a sort of spongy Wood. This will burn, when dry, in a tender manner like Touch-wood: And if we do not use it for Firing, may be beat and dress'd like Hemp, and will yield a Thread fit for Cordage and coarse Cloth.

If we tap or wound the Stem of this Plant, the Juice of it will flow so plentifully, that a good Liquor will issue from it in great quantity, as it does from the Birch-Tree;

and as it first comes from the Tree, will be a kind of waterish Juice; but when boil'd, more vinous; and more boil'd still, will become like Honey.

But particularly, the Wine-Palm has a Juice in it of a very extraordinary Nature, and is called the *Palma Vinifera* on that account. Some *Dutch* Merchants inform me, there is one of these Plants in the *Amsterdam* Gardens, brought from *Curasao* or *Surinam*.

All the Palms are observ'd, by Travellers of the best Credit, to grow very tall, and have most of these Excellencies: The Liquor of one is either in greater Perfection than another, or in greater Quantity. And as for the Leaves, one sort perhaps is a little more fitting for Clothing than another; but in the main, they all carry the same Principle.

I have now only to add, that my Aloe has been mistaken by many who have observ'd it; and as I had Crowds of People of the most curious sort, as well as the most noted Travellers to see it, I judg'd it best to leave my Decision of the matter till I had received their several Opinions of it: And I gratefully acknowledge the Favours I have receiv'd from many of the Ingenious, concerning several Particulars, which relate to its History.

As I am a Gardener, it is expected I should add some proper Directions for the Culture

Culture of this sort of Aloe ; which I find is the most hardy of any of the *American* sorts, therefore requires no more than common Shelter in a Green-house during the Winter-Season, and in that time should have very little or no Water : and special Care must be taken, that we keep the Crown or Center of the Plant free from Wet ; which, if any should lodge there, the Plant will be in danger of rotting.

If we have a mind to make the Plant shoot large Leaves, and grow vigorously, we should every Spring give it fresh Earth towards the Surface of the Pot or Tub, observing to keep the Leaves as free as possible from touching it, and let it have room enough to spread its Roots freely.

The best sort of Case for this Plant when it grows large, is a square Box, so made, as to open on every side, that one may more easily give it fresh Earth, and examine the State of the Leaves on the under side. The Earth the most proper for it, should be light, and finely sifted.

But if we would have it increase plentifully, then the Roots must be confined in a narrow compass, and the Plant kept dry : It will then fling out abundance of Off-sets ; which being taken off, and transplanted into Pots of fresh Earth, presently grow. I mention this particularly, because the Aloe of this kind, whose Leaves are finely edged
with

with Cream-colour, may be managed by the same Method. The best time of transplanting the Off-sets is from *April* till the end of *July*.

But I cannot part with this Subject, without taking notice of a detestable piece of Malice and Abuse that was offered me when this Aloe was flowering in my Garden, and gave me the fairest Prospect of possessing an easy Fortune for my Life, from the vast Concourse of People that daily resorted to my House to see it.

When the Aloe was in so great Perfection, as to invite more Company than my House and Garden could well contain, and the last Flower of my Torch-Thistle was opening; three Men, habited like Gentlemen, were inadvertently let up to see it: who no sooner were come to the Plant, but one of them began to break off the Buds; and being desired to desist, took hold of the main Stem, and endeavour'd to break it by violence; but it was luckily, much too strong to give way to their base Intent. This their Attempt was soon discover'd by all the Gentlemen and Ladies in my Garden, and I was call'd to the Assistance of my Servant, and to save my Plant from the fury of their Rage: When immediately one, who was on the top of the Stair-case in my Aloe-House, being intreated by me to come down, fell a swearing, and drew his Sword upon my
Man,

Man, telling him he would run him through the Body if he offer'd to assist me ; and in the mean time kick'd me on the Head while I offer'd to go up, while another at the bottom of the Stairs, one of his Companions, pull'd me by the Legs ; and a third of them wounded me with his Sword in two places of my Neck, so that I was under the Surgeon's hands many Weeks, devoid of attending the curious Persons that did me the honour of coming to my Garden ; which was one Disadvantage. And moreover, the Violence I had receiv'd, occasion'd all the good Company that were ready to see my Curiosities, to leave my Garden ; to the great Loss, not only of the Money I might have gain'd, but, I fear, that noble Company might be disobliged. I am the more particular in this Account, that I may have an Opportunity of acquainting that worthy Assembly throughly of the Case ; and to inform the World, at the same time, that I have prosecuted the Persons that committed the Riot ; notwithstanding one of them said he was offer'd to be put in the Commission of the Peace two or three Months before ; and would now accept on't, that he might have an occasion of destroying my Aloe, and ruining my House. But 'tis our Happiness, that the Government has so much Wisdom as not to admit of such base, ungenerous People,

People, to be the Distributors of their Justice. I beg leave to ask,

Is such Treatment allowable in Reason, or does it not appear to be malicious, when Men clandestinely endeavour to destroy the Goods of a Man who has got them honestly, and has shew'd himself with Good-nature to all Mankind?

Do not such Actions carry the face of Folly with them, (to make the best Excuse) to insult a Man in his own House, whom they never had seen before? One might have expected such Treatment from a Mad-man.

Is it not the Character of Men of base Principles to act Cowardly? and when they have a superior Power, or undeserv'd Weapons in their Hands, to attack a Man unarm'd?

Is it not Villanous to destroy, or attempt to destroy a Man's Estate? Common Robbers endeavour to get Money to support themselves by Robbing, but such would ruin other People out of pure *Ill-nature*. However, they have paid pretty well for that; and I hope they will be *better Men*, or *good Boys* for the future, and not run such Lengths as may bring any of them to a villanous End.

I leave these my Sentiments to be consider'd by the true Gentlemen, and appeal to them, whether such Transactions can be allow'd warrantable by those who are Generous enough to be Just?

C H A P. II.

Of the Torch-Thistle ; call'd Cereus erectus maximus Americanus Hexangularis, Flore albo radiato : or, Great upright Torch-Thistle of R. B. Hist. Plant. Succ. Dec. I. p. I.

THIS Plant, as the Name informs us, comes from the *American* Quarter; but more particularly the Merchants trading to *Jamaica* and *Barbadoes*, as well as all the Natives, know it by the Name of the Dildo-Tree. But most of our *European* Botanists call it Torch-Thistle, from its strait manner of disposing it self like a Torch, or rather from its appearance like a Taper or *Flambeaux*, which has several Divisions on the Sides, as a fluted Pillar has in Architecture; and from the Thorns or Spines which are commonly found on the edges of the Plant, that are sharp like those on the Thistle, makes it bear this Name.

There are many Sorts of this Plant in *America*, every one of which are much more tender than this, and therefore require the warmest Stoves to keep them alive in prosperity. But this will stand abroad all the Summer, that is, from the middle of *May*

to the middle of *September*; and then need no other Shelter but a common Green-house where Frost cannot enter.

Of the *Cereus* or Torch-Thistle there are some which constantly shoot upright like Pillars, and others that either creep up Trees, or run upon the Ground; but none of them ever produce any Leaves, but Stems only beset with Thorns, till they come to flower, and then the Fruit-part swells to near its full growth, before the Blossom opens at the Head of it; which makes some Authors reckon this Tribe of Plants very nearly related to the *Opuntia*, or *Indian Fig*; or, as the Natives of *America* call it, Prickly Pear; which always has its Fruit full grown, before the Flower opens at the top of the Fruit. But it is observable that the *Opuntia* or *Indian Fig*, as many as I have seen of them, open their Blossoms in the Day-time; while all the Torch-Thistle Kind, that I know or have heard of, open their Flowers in the Night; as I shall explain by and by.

But the *Cereus* or Torch-Thistle which blow'd this Year, *An. 1729*. I must now describe, as well as give the known History of it.

The first of this Plant that was in *England*, was in the Gardens of the late Right Reverend Father in God *Henry Compton*, Lord Bishop of *London*, at *Fulham*; which
was

was then esteem'd one of the greatest Curiosities in the Kingdom. It was, at its first appearance with us, of so surprizing a Make, that the Curious from all Parts were invited to see it. And as I am informed, the Seed of it was sent to his Lordship from *Barbadoes*, which was so carefully manag'd, that it soon arriv'd to a good height ; but still with one single Stem, without hopes of yielding any Branch to make a young Plant of, or the least appearance of an Off-set : Till at length it was concluded that it would grow from Cuttings, like other Succulent Plants, and therefore the Plant was cut into several pieces about the end of *May* ; and after each part had been expos'd to the Sun for some few Days, they were replanted, and prospered.

The very top of all grew still upright without branching, but the other Pieces having no leading Tops, broke forth into small Heads, about four or five a-piece ; and the lower part of the Plant, next the Root, did as much : so that the Year following there were capital Cuttings enough to raise many Plants from.

By this means the most curious Acquaintance of his Lordship became furnish'd ; and about twenty Years ago, my Predecessor, Mr. *Darby*, got into the Sort, and raised the large Plant which I now have, as well as many others which he sold, that are now

as tall as most in *England*. One or two of which have flower'd where they were well taken care of; but where they have been neglected, they appear of a pale yellow Colour, and give a poor Resemblance of the Plant, though they are tall. In short, they will not flourish without they enjoy a freedom of Air when the Weather is temperate, and have Pot-room enough, and are treated once a Year with fresh Earth. And this, as I am told, is the hard Case of those in the *Amsterdam* Gardens, which were kept confin'd all the Summer in a warm Stove with the Coffee-Trees, where they can enjoy but little Benefit from the Air. These are said to be several Years older than any in *England*; and it may well be so, since they say those Plants are a great deal more than twenty foot high; but I hear they are very weak, and have never blossom'd.

In the mean time, I was acquainted by some Gentlemen of the Royal Society, who have seen the great Plant of this sort in the King of *France's* Physick-Garden at *Paris*, that the *Cereus* there is much the largest in *Europe*, being now between twenty and thirty Feet high, and growing in the natural Ground, under a South Wall, and cover'd with a Glass Case. But this Plant would have been much taller than it is, if there had been opportunity of raising the Glass-Case higher some Years ago. But as there was
not,

not, without injuring some part of the Garden behind it, by its Shade ; the top of the Plant was cut off, and then the Body shot out several Branches or fresh Stems, and produced Flowers from year to year.

As for the Plants of the *Cereus* that flower'd in my Garden at *Hoxton*, they were about eight Foot high each, and were in the most vigorous growing state that ever I had seen any. The Thorns in some places on their Edges renew'd themselves, the principal or leading Thorn of the Cluster shot forth longer than usual, and appear'd more transparent than ordinary ; and where that show'd it self, one might observe at the bottom or Root of such clump of Thorns a small swelling, seemingly cover'd with a small and green Moss. To compare such a knot of Thorns with the others that are not design'd for Blossom that Year, you will find a great deal of difference. A nice Judge may know the Midsummer before, what will blossom the Year following ; and by the number of such Knots, may know how many Blossoms will be upon each Plant ; for there never is more than one Blossom proceeds from a Knot of Thorns.

My Plants which flower'd, began in *June* to bud, or put out their Blossom-buds ; and before *July* was ended, began to open their Flowers, after the Fruit-part had made its full growth, like the Fruit of the *Indian Fig*.

It is remarkable that the Flowers did not open like as other Flowers of Plants commonly do in the Day time, but began only to display themselves about Sun-set. About Seven in the Evening the Blossoms began to open, and about eleven or twelve the same Night were quite open, and in their full lustre. During their opening, one might easily observe the motion of the Apices or Pendants in the Body of the Flower, cracking or breaking, and flinging out their Dust, (by means of a Microscope.)

The Flower, when it was open, was about four Inches over, consisting of Flower-Leaves, disposed like a Star, or those of a Sun-Flower; but as the Leaves of the Sun-Flower are yellow, the Leaves of my *Cereus*-Flower were white, and tipped with a Peach bloom-colour, while the Tendrels or Threads in the middle were yellow. I suppose, that from some of my Men, the Person who publish'd the spurious Copy of my *Cereus*, took a hint that the *Cereus*-Flower was yellow, and therefore fram'd an Imaginary Plant from thence; because, I observe, the Flowers of the *Cereus* he has painted are all yellow. It is for this Reason I have publish'd my great Aloe and this *Cereus* in Blossom, with other curious Plants that were in my Garden, in their proper Colours, that the Curious may be no longer impos'd upon.

About

About Sun-rise the next Morning the Flowers began to shut up, and before Eight were quite closed ; declining daily for near a Fort-night, and then dropp'd *.

It is reported, that in the *West-Indies*, where they grow naturally, the Fruit, when it is ripe, is of a red Colour, like the Fruit of the common *Opuntia* or *Indian Fig*.

The flowering of this Plant in the Night, with us is somewhat surprizing ; but all the Sorts of *Cereus* do so, and two Sorts of *Ficoides* ; some Kinds of *Convolvulus*, and two or three other Plants : which make some believe, that these Night-flowering Plants with us, are originally bred in such parts of the World where the Day is in the time of our Night, and so are constant to their time of opening their Flowers, let them be where they will. But 'tis a Case which requires a great deal of Consideration to determine, and I shall leave it to the Learned to consider.

We may say of this *Cereus*, that it is the most hardy of all others, for it will prosper very well in a common Green-House ; whereas all the other Varieties I know of, must have hot Stoves in the Winter, and will bear very little of the Summer Air abroad. We have several other Kinds in the *West-Indies*, which grow upright like this, but have

* The Right Ones may be had of *Weaver Bickerton* and *Richard Mountague*.

have some more, some fewer Angles, differing in their Colour, and in the manner of bearing their Spines, and the Length and Colour of them. About *Nevis*, *St. Christopher's*, *Jamaica*, and Islands thereabouts, there are most of the sorts to be found, as well as in an Island somewhere thereabouts, called the Island of *Mona*, uninhabited ; but by the Account of some who have accidentally touched at it, abounds with Rarities of these kinds. It could be wish'd, that those who know that Island, if they happen to come near it, would examine what there was upon it : for besides the odd things my Friends observ'd growing there, they found a great Variety of Oranges and large Fruits, which were exceeding pleasant, and refreshing to them.

It is remarkable, from the best Accounts, that every sort of *Cereus* brings a different-colour'd Flower, and as different Fruit from one another in Taste and Quality, as any Tribe of Plants we know.

But we have some sorts of *Cereus* which creep upon the Ground, and run up Trees ; such as the triangular *Cereus*, described and figured in *Piso* and *Margrave's* Book of the *Brazil* Plants : this is there figured with its Flower ; and as one meets with the said Book colour'd in several Libraries, said to be done by the Authors, it appears that the Flower is blue. We have had of this sort
many

many Years in *England*, but without shewing any Flower; notwithstanding there are Plants of it now not less than fifteen Foot in length, in the Stoves at *Hampton-Court*.

It is the Nature of this Plant to shoot out Roots plentifully from every Leaf, if one may so call it; tho' we commonly train it up a Stick: even these Roots shoot from the upper Shoots, tho they are 15 Feet above ground, and all of them aiming to reach the Earth, make the Plant look as if it was covered with a coarse piece of Net-Work; but if the Plant stands near a Wall, these Roots fasten themselves to it: which one observes at *Hampton-Court*, the Plants there of this sort spreading their Roots on the top upon the Ceiling; which plainly indicates that the Plant should run upon the Ground, that it might strike Root as it puts forth its Shoots. For this end, Dr. *Udall* of *Enfield* had contrived, a little before he died, to train them in long Troughs, with hopes by that means to bring them to flower; which seems to be the rightest way of proceeding, as it follows Nature. I doubt not but if the Plaster of the Ceiling in *Hampton-Court* Stoves was not too hard to receive the Roots throughly, this Plant would have blossom'd there long before now. I am particular in this, that those who chuse to cultivate this Plant in their Stoves, may give them Troughs instead of Pots, that they may have the pleasure

sure of observing the Flower, and gathering the Fruit, which is said to be very pleasant both to the Eye and the Taste. The Soil for this will bear a good share of Rubbish of Houses in it, and requires very little Water, as well as the other tender upright sorts: But the annex'd Figure will give my Reader a more perfect *Idea* of it.

It is observ'd by the Gentlemen who have seen this Plant growing in the *West-Indies*, that it sometimes runs up Trees, and takes hold of them, by shooting their Roots into the Bark: and also that some Plants of this sort shooting on the Ground, are above an hundred Foot long.

Another *Cereus* we have in our Stoves of a creeping kind, which seems to be figured by *Parkinson*, under the Name of the *Star-Thistle* of *America*, or the *Latin* Name he gives it, *Planta Pinnata Spinosa*. The same sort is also figured in the *Paradisus Batavus*, but without a Flower. The Stalks of it are about the Thickness of a large Reed, and are channel'd so, as to shew six Ribs or Angles, set on the Edges with small Knots of white Thorns. The Stalks are of a purplish Colour when they are in health, and shoot out of one another like the rest of the *Cereus* Tribe, shooting out Roots from the Sides,
like

like the triangular fort above-mention'd, and should be treated in the same manner to run in Troughs. We have this Plant pretty frequent in our Stoves, but 'tis generally too much drawn for want of Air; and the Shoots are so weak, that they look of a pale Green, and bring no Flowers.

I am told it blossom'd at *Hampton-Court* in King *William's* Time, and that there is now a Specimen of the Flower dry'd. When it blossom'd, the Plant had no Earth to subsist from, nor any Nourishment but what it drew by its Roots that grew into the Wall of the House. The Flower is about four Inches over, and opens in the Evening like the rest, yielding a strong Scent like *Jasmine*. The Flower is shaped like a Star. The same fort blossom'd lately at Mr. *Sherrard's*, at *Eltham* in *Kent*.



C H A P. III.

Of the Glastenbury Thorn, or Holy Thorn, or Spina Acuta Biflora Britannica, of Parkinson.

THIS Plant has been for many Centuries in great esteem among the Religious, for its extraordinary budding and flowering at *Christmas*, as well as in *May*, in a natural way, like our common White-Thorn. The Story is so remarkable, and so well receiv'd by those who are strictly religious among the Roman Catholicks, that there is not a Year passes but many of them make a kind of Pilgrimage to *Glastenbury*, to see the great Plant there blossom and bud on *Christmas-Day*; at which Season it surely shews its Flowers and Leaves, as I know for certain, from a Plant which I have had of it many Years in my own Garden, and never fails flowering at that time of the Year, tho' it stands in one of the most shady Places of my Ground, and even though the Weather is ever so severe.

This Plant, many Authors of good Credit tell us, was brought into *England* by *Joseph of Arimathea*, a Senator of *Judea*, and a Disciple of Christ, who begg'd the Body of his Saviour from *Pilate* after the Crucifixion,

fixion, and wrapt it in fine Linen, and laid it in his own Sepulchre. The History farther relates, that the Plant which is now so famous, was brought over by the said *Joseph* of *Arimathea* as a Staff; and that upon his first landing in *Britain* to preach the Gospel, he set his Staff in the Ground, and it grew there, and budded and blossom'd on *Christmas-Day*; and that Plant, and others which have been propagated from it, have continued to do so ever since.

The extraordinary flowering of this Plant at so cold a Season, was undoubtedly no small means of helping St. *Joseph*, and the other Disciples that came with him, to propagate the Christian Faith, as well as the extraordinary Vegetation of the Staff, which the People thought was no more than a dead Stick when he brought it over. And at that time of day we must likewise observe, that the People of *Britain* were under the Tuition of a Sett of Wise Men skill'd in the *Ægyptian* Learning, call'd *Druids*, who at the same time dispensed Religion and Physick under the Oak, which was the Temple of *Saturn*, whom they worship'd: So that without a miraculous-like Beginning, it would have been difficult for St. *Joseph* to have set aside the superstitious Bigotry the People had then for the Worship of their God *Saturn*, and the Adoration they paid to his Priests the *Druids*, who kept them
in

in the greatest Awe, and under the greatest Subjection: For it seems by the Accounts which I have received from several Gentlemen of Learning, that whoever of the People were not Observers of the Doctrine deliver'd them by the *Druids*, must never hope for any Advantage from their Physick, or any Remedy, though they suffer'd under the most grievous Maladies. And these Gentlemen tell me, that some Writers have conjectur'd from some Relations of those Times, that the *Druids* were not a little famous for poisoning, and giving such as had offended them tormenting Draughts, and pernicious Diets, in order to bring them to their Obedience.

These Severities of the *Druids* over their People, did not perhaps help a little to the furtherance of St. *Joseph's* Design of propagating the Christian Faith, which was easy, humane, and consisting of good Morals; so that in a short space these Disciples of Christ had many Followers, as a worthy Gentleman, my Correspondent, informs me.

I shall have occasion to say more of the *Druids* and their Worship in another place, from an Account I have received from an extraordinary Antiquary; but, in the mean time, shall give my Reader such a Relation of St. *Joseph's* coming into *England*, as I have receiv'd in a Letter from a curious Gentleman of *Oxford*.

To Mr. Cowell, Gardener at Hoxton.

SIR,

Oxford, Jan. 18, 17 $\frac{2}{3}$ ⁹.

‘ I Have heard so much of your Curiosities
 ‘ in the Aloe and Torch-Thistle, but
 ‘ especially your Holy Thorn, or *Glastenbury*
 ‘ Thorn, that I venture to write to you,
 ‘ tho’ unknown, upon the account of the lat-
 ‘ ter. As my Study has led me particularly
 ‘ to search into Antiquities, I believe the
 ‘ following Account may not be unacceptable
 ‘ to you, how *Joseph of Arimathea* hap-
 ‘ pen’d first to come into *Britain*.

‘ You must know that the Disciples of
 ‘ Christ, soon after the Death of their Ma-
 ‘ ster, by consent chose their several Routs
 ‘ or Journeys, to preach the Gospel in the
 ‘ then known Parts of the World.

‘ *Nicephorus*, a *Greek* Author, tells us in
 ‘ his second Book, Chap. 40. that *Simon*,
 ‘ born in *Cana Galilei*, was so fervent in his
 ‘ Love for his Master, and his Zeal for the
 ‘ Gospel, that he was surnamed *Zelotes*. He
 ‘ travell’d through *Egypt* and *Afric*, then
 ‘ through *Mauritania* and *Lybia*, preach-
 ‘ ing the Gospel, and the same Doctrine he
 ‘ brought to the Western Sea, and the Isles
 ‘ call’d *Brytania*, &c.

‘ In his third Book, Chap. 1. he tells us,
 ‘ that the Apostles dispers’d themselves over
 ‘ the Face of the whole Earth; which was
 ‘ then

‘ then confined to *Asia, Africa, and Europe*,
 ‘ for *America* was not at that time known.

‘ In the Disciples Division of the then
 ‘ known World, which they appointed and
 ‘ regulated by Lot or Ballot, the Apostles fill’d
 ‘ with the humane, generous, and sovereign
 ‘ Doctrine of Christ, free from Deceit or De-
 ‘ sire of worldly Lucre, set forward to preach
 ‘ the Doctrine of their Master, thro’ Coun-
 ‘ tries unknown, and beset with every Diffi-
 ‘ culty that could attend human Life.

‘ St. *Peter* first preach’d the Gospel at
 ‘ *Ferusalem*, and then in *Galatia, Bythinia*,
 ‘ with the *Upper Asia, Cappadocia*, and in
 ‘ *Italy* also taught the Gospel.

‘ St. *John* in *Asia*, and ended his Life
 ‘ there.

‘ To St. *Andrew* fell the Provinces about
 ‘ the *Euxine Sea*, all *Scythia, Byzance, Ma-*
 ‘ *cedonia*, and *Greece*.

‘ St. *Thomas* preach’d Christianity among
 ‘ the *Parthians, Indians*, and in the Isle of
 ‘ *Taproban*.

‘ Another chose *Egypt and Lybia*; and
 ‘ another would go to the uttermost Coasts
 ‘ of the Ocean, with the Isles of *Bryttaine*.

‘ *Dorotheus* tells us, that *Simon Zelotes*,
 ‘ passing through *Mauritania and Africa*,
 ‘ preaching the Doctrine of Christ, was at
 ‘ length crucify’d and bury’d in *Bitbanca*;
 ‘ or, as some would have it, *Brytania*.

‘ He

‘ He also tells us, that *Aristobulus*, whom
 ‘ the Apostle to the *Romans* mentions with
 ‘ great Veneration, was made a Bishop in
 ‘ *Brytaine*, or *Bithania*.

‘ *George Major* tells us in his Preface, that
 ‘ immediately after Christ’s Resurrection, in
 ‘ the time of *Claudius* the Emperor, the
 ‘ Light of the Gospel was kindled in *Britain*
 ‘ by *Joseph* of *Arimathea*, that bury’d the
 ‘ Body of Christ.

‘ *Tertullian*, when he wrote against the
 ‘ *Jews* of those Times, tells us, that the
 ‘ *Britains*, Inhabitants of Places unknown
 ‘ to the *Romans*, were yet obedient and sub-
 ‘ ject to the Kingdom of Christ.

‘ *William* of *Malmsbury*, in his Book of
 ‘ the Antiquities of *Glastenbury*, assures us,
 ‘ that *Frecuphus* affirms, in the fourth Chap-
 ‘ ter of his second Book, that *Philip* the
 ‘ Apostle preaching the Word of God in
 ‘ *Gaul*, which is now called *France*, chose
 ‘ out twelve of his Disciples, whom he sent
 ‘ into *Britain* to preach the Word of Life:
 ‘ He appointed over these as Chief, *Joseph*
 ‘ of *Arimathea*, his dear Friend, that bury’d
 ‘ our Lord.

‘ These, according to *John Capgrave*, who
 ‘ brings *Milkin* and *Merlin* for his Vouchers,
 ‘ came into this Land in the Year of Christ’s
 ‘ Incarnation 36, in the time of *Arviragus*,
 ‘ who gave to them the Isle of *Avalon*,
 ‘ where they built an Oratory of Wrythen

‘ Wands or Boughs, which was the first Chri-
 ‘ stian Church, if one may so call it, that
 ‘ was erected in *Britain*. We find this Cu-
 ‘ stom was follow’d in the first Times, in
 ‘ building the Christian Churches in *Britain*
 ‘ of Boughs; as an Instance, Bow-Church or
 ‘ Bough-Church at *Duresm*, which was set
 ‘ up by the Monks or Disciples of Venerable
 ‘ *Bede*, was built of Boughs of Trees, I sup-
 ‘ pose to imitate in some measure the Tem-
 ‘ ples of *Saturn*, which were always kept un-
 ‘ der the Oak. And as every one of the Hea-
 ‘ then Deities had their favourite Tree, so the
 ‘ several Worshippers of them, chose the fa-
 ‘ vourite Tree of their God as a Temple to
 ‘ worship him in. And the Disciples of Christ,
 ‘ perhaps, might chuse this way of making
 ‘ their Temples, that the People at once
 ‘ might more easily come over to them; be-
 ‘ cause the Christian Temples, being made of
 ‘ Boughs of Trees, were not altogether diffe-
 ‘ rent from those allotted for the Worship of
 ‘ *Saturn*, and the other Heathen Deities.

‘ Again, it is remarkable with regard to
 ‘ the Oak, which was *Saturn*’s Temple, that
 ‘ in *December*, which is the Month in which
 ‘ we commemorate the Birth of our Lord,
 ‘ the Oak is vacant of Leaves, or, at best,
 ‘ they are dry and dead at that Season; but
 ‘ as the great Feasts of *Saturn* were held in
 ‘ that Month, the Druids, as a learned Au-
 ‘ thor reports, obliged the People to bring

‘ in Boughs and Sprigs of all the Evergreens
 ‘ they could find to adorn and cover it. And
 ‘ the Disciples of Christ might very likely
 ‘ follow that method in covering their Tem-
 ‘ ples at *Christmas*, that the People might
 ‘ not too suddenly part from all their Cere-
 ‘ monies, but be brought by degrees to the
 ‘ Christian Faith : Which Reason teaches us
 ‘ could not so soon have been brought about,
 ‘ if every Custom the People had been used
 ‘ to, had been forced from them at once.
 ‘ But the Christian Religion is the Religion
 ‘ of Good-nature, and does not allow of Per-
 ‘ secution. I am apt to think that the Cu-
 ‘ stom of adorning our Churches at *Christ-*
 ‘ *mas*, as well as our Houses with Ever-
 ‘ greens, proceeds from what has been re-
 ‘ lated.

‘ But to return to *Joseph* of *Arimathea*,
 ‘ and his Disciples, we learn from *Milkin*
 ‘ and *Merlin*, that in the Place where they
 ‘ built their Oratory, they were bury’d :
 ‘ Which Place being since encreas’d, and
 ‘ newly builded, (as those Authors relate)
 ‘ by divers Princes was called *Glastenbury*.
 ‘ For Confirmation of which, King *Henry*
 ‘ the Second, in a Charter granted by him,
 ‘ affirms that he had diligently perused the
 ‘ Privileges and Charters of *Glastenbury*,
 ‘ which he caused to be presented and read,
 ‘ not only of *William* the First, of *William*
 ‘ the Second, and *Henry* the First, his Grand-
 ‘ father,

‘ father, but also the Charters of the Princes
 ‘ his Predecessors of more antient Times ;
 ‘ viz. the Kings *Edgar, Edmund, Edward,*
 ‘ *Elfred, Bringwalthius, Kenthwin, Bal-*
 ‘ *dred, Ina, Arthur,* and that Noble Prince
 ‘ *Cudred,* and many other Christian Kings
 ‘ beside ; also of *Kenewalla,* sometime an
 ‘ Heathen and Pagan King, concerning the
 ‘ House of *Glastenbury.* He found, that in
 ‘ some of these Charters it is call’d *The Mo-*
 ‘ *ther of Saints ;* and in some others is named
 ‘ *The Grave of the Saints,* as one may sup-
 ‘ pose, from *Joseph of Arimathea’s* being
 ‘ bury’d there with his Disciples. And that
 ‘ the said Place was first builded even by
 ‘ the very Disciples of Christ themselves,
 ‘ and by them dedicated to our Lord, as the
 ‘ first Place which he chose to himself in this
 ‘ Realm. All which, as a Truth, King *Henry*
 ‘ afore said establish’d by his Charter ; which
 ‘ *Stow* affirms to have seen.

‘ I think this may be enough to prove that
 ‘ *Joseph of Arimathea* was in *Britain,* and
 ‘ first preach’d the Gospel here ; or, at least,
 ‘ that the Gospel was first taught at *Gla-*
 ‘ *stenbury.* There is the same Authority for
 ‘ believing it, as there is for believing any o-
 ‘ ther History ; and for the present I remain
 ‘ your Servant unknown.

M. H.

P. S.

P. S. ‘ I shall take an opportunity next Post
 ‘ to give you a little further Account of
 ‘ *Glastenbury*, which may help to illu-
 ‘ strate your Curiosity about your Thorn:
 ‘ A Plant of which I shall desire to have,
 ‘ and I will send a Gentleman to pay for it.’

Though I should now proceed to give a further Account of the *Glastenbury* Thorn, from a very curious Letter I have received about it; as I have receiv’d another from the aforesaid Correspondent, continuing the Account of *Glastenbury*, I think it necessary to let them be together, as they concern the same History: And as they are allow’d to be very Curious, I shall venture to publish them just as I receiv’d them. The second Letter is as follows.

To Mr. Cowell, Gardener at Hoxton.

SIR,

Oxford, Jan. 20, 17 $\frac{2}{3}$.

‘ **I**N a former Letter I gave you my Sen-
 ‘ timents, with the Authority of some
 ‘ good Historians, concerning *Glastenbury*,
 ‘ and the Arrival of *Joseph of Arimathea*
 ‘ in *Britain*, which is the occasion your
 ‘ Thorn is so famous; and I now, if you
 ‘ think it worth your reading, send you a
 ‘ farther Account of *Glastenbury*, which may
 ‘ serve to confirm what I wrote before.

‘ Imme-

‘ Immediately after my former Epistle, you
 ‘ may read, that the famous King *Arthur*,
 ‘ who was noted for his Bravery, and his
 ‘ Valiant Knights of the Round Table, was
 ‘ so much a Zealot to the Christian Faith,
 ‘ that he gave to the Abbey of *Glastenbury*,
 ‘ (as *Rosse* informs us) *Brentmarsh*, with
 ‘ other Possessions, to the Value of Five hun-
 ‘ dred Marks, (which was at that time equal
 ‘ to Twenty thousand Pounds now.) He was
 ‘ buried at the same Abbey, after he had go-
 ‘ vern’d these Realms Twenty-six Years. And
 ‘ what is very remarkable in his Arms, are
 ‘ the three Crowns, which are so disposed, as
 ‘ to be united with one another, as an Em-
 ‘ blem of the Trinity. These Arms, I am
 ‘ told, are since born by the Knights of the
 ‘ *Bath*, with the Motto, *Tria juncta in*
 ‘ *Uno*. If this was his Meaning, as most
 ‘ Accounts seem to indicate, it may be sup-
 ‘ posed he was not only a good Christian, but
 ‘ had a strong Faith in the Doctrine of the
 ‘ Trinity : but I leave that to be discuss’d by
 ‘ others.

‘ About Six hundred Years after his Death,
 ‘ viz. about the Year of Christ 1171, *Gla-*
 ‘ *stenbury* was burnt. And in the last Year
 ‘ of *Henry II.* which was *Ann.* 1189, the
 ‘ Body of King *Arthur* was found buried in
 ‘ the Church-yard, betwixt two Pillars, six-
 ‘ teen Feet deep under Ground. But those
 ‘ that digged the Ground there to find his
 ‘ Body,

‘ Body, after they had dug about seven
 ‘ Feet deep, found a mighty broad Stone,
 ‘ with a Leaden Cross fasten’d to that part
 ‘ which lay downward towards the Corps,
 ‘ containing this Inscription: *Hic jacet Se-*
 ‘ *pultus inclitus Rex Arturius in Insula*
 ‘ *Avalonia.* This Inscription was graven on
 ‘ that Side of the Cross which was next to
 ‘ the Stone, so that till the Cross was taken
 ‘ from the Stone, it was not discover’d.

‘ This, as well as other Histories, confirms
 ‘ that the Disciples landed at the Island named
 ‘ *Avalon*, where *Glastenbury* now is; tho’
 ‘ at present the Waters that surrrounded that
 ‘ Island are no more seen, neither is the Lake
 ‘ which came to it from the Sea any longer
 ‘ visible, being fill’d up either with the Wash
 ‘ of the Hills about it, or drain’d by Art, so
 ‘ that *Glastenbury* is now an Inland Town.
 ‘ Where the Lake was said to be, is now
 ‘ Marshy Ground; infomuch, that without
 ‘ a continued Series of dry Weather for many
 ‘ Weeks, ’tis unpassable; and even then the
 ‘ Ground bounds under one, the Surface of
 ‘ Earth in most places being scarcely sixteen
 ‘ Inches deep before one reach the Water.

‘ I am the more particular in mentioning
 ‘ of these Matters, to remove an Objection
 ‘ which many have made against *Joseph* and
 ‘ his Disciples landing at this Place; which
 ‘ now being many Miles from the Sea, they
 ‘ suppose must have always been so. But in
 ‘ the

‘ the time of some of the *Saxon* Kings, we
 ‘ find it was not then confirm’d Land, but
 ‘ a Lake or Fen, such as we have many now
 ‘ in *England*. However, if we consider the
 ‘ length of time since *Joseph* of *Arimathea*
 ‘ came into *Britain*, which is Seventeen hun-
 ‘ dred Years, one may conclude many far
 ‘ greater Changes might happen than that
 ‘ we speak of.

‘ Our Histories tell us, that as soon as *Jo-*
 ‘ *seph* of *Arimathea* and his Disciples landed
 ‘ in the Isle of *Avalon*, he presently planted
 ‘ his Staff upon the Place where he landed,
 ‘ which grew, &c. as before related.

‘ But give me leave, as I have occasionally
 ‘ mentioned King *Arthur*, to relate a little
 ‘ more of his Story. His Body was found,
 ‘ not inclosed in a Tomb of Stone, but with-
 ‘ in a great Tree made hollow like a Trough ;
 ‘ the which being digged up and opened,
 ‘ therein were found the Bones of *Arthur*,
 ‘ of a marvellous bigness, as *Giral. Cam-*
 ‘ *brensis*, a learned Man of those Times re-
 ‘ ports to have heard of the Abbot of *Gla-*
 ‘ *stenbury*, by whom he was inform’d, that
 ‘ the Shin-bone of *Arthur* being set up by
 ‘ the Leg of a very tall Man, came above
 ‘ his Knee the breadth of three Fingers. The
 ‘ Skull of his Head of a wonderful bigness ;
 ‘ in the which Head there appear’d the Prints
 ‘ of ten Wounds, or more ; all which were
 ‘ grown into one Seam, except only that
 ‘ whereof

' whereof he died ; which being greater than
 ' the other, appear'd very plain. Also in o-
 ' pening the Tomb of his Queen *Guinever*,
 ' that was bury'd with him, they found the
 ' Tresses of her Hair whole and perfect, fine-
 ' ly platted, of colour like to Gold, but be-
 ' ing touch'd, fell to Dust. The Abbot of
 ' that House was named *Henry Blois*, and
 ' was Nephew to King *Henry* the Second ; by
 ' whose Command the Tomb of *Arthur* was
 ' sought for, and found, and removed into
 ' the new great Church, and there buried
 ' in a fair Tomb of Marble ; laying the Bones
 ' of the King at the Head of the Tomb, and
 ' the Bones of the Queen at his Feet, towards
 ' the West. The Leaden Cross, with the In-
 ' scription, as it was found and taken off the
 ' Stone, was kept in the Treasury of *Gla-*
 ' *stenbury*, till the Suppression thereof in the
 ' Reign of King *Henry* the Eighth.

' *Floriacensis* informs us, that so great a
 ' Zealot in the Christian Faith was *Kenul-*
 ' *phus*, King of the *West Saxons*, who lived
 ' about Seven hundred Years after Christ,
 ' that he new built the Abbey of *Glasten-*
 ' *bury*, which was the fourth building of
 ' that Monastery. Besides which, the said
 ' King also built a fine Chapel, dedicated
 ' to St. *Joseph*, lined and garnish'd with
 ' Gold and Silver, with many Ornaments
 ' likewise of Gold and Silver ; to the build-
 ' ing of which Chapel he gave Two thou-
 ' sand six hundred and forty Pounds of Sil-

‘ ver, and to the Altar Two hundred and
 ‘ sixty-four Pounds of Gold ; a Chalice,
 ‘ with the Patten, ten Pound of Gold ; a
 ‘ Censer, eight Pound, and twenty Man-
 ‘ cas of Gold ; Vessels to the Altar for Wa-
 ‘ ter, thirteen Pound of Gold ; a Bason, eight
 ‘ Pound of Gold ; an Holy-Water Bucket,
 ‘ twenty Pound of Silver ; Images of our
 ‘ Lord, and the Twelve Apostles, one hun-
 ‘ dred and seventy-five Pound of Silver, and
 ‘ twenty-eight Pound of Gold ; a Pall for the
 ‘ Altar, and Ornaments for the Monks, of
 ‘ Gold and precious Stones, subtilly compact-
 ‘ ed, to an immense value : all which Trea-
 ‘ sure he gave to that Monastery in the Year
 ‘ of Christ 705.

‘ It is reported in *Sca. Chron.* and by o-
 ‘ ther Writers, that *Etheldred*, King of the
 ‘ *West-Saxons*, about the Year 870, went in
 ‘ Battle against two Pagan Kings, with his
 ‘ Brother *Aelfred* ; where it was determin’d
 ‘ that the King, with his Army, should at-
 ‘ tack the two Pagan Kings ; and Prince
 ‘ *Aelfred*, with his Army, should oppose the
 ‘ Pagan Dukes, who were *Danes*. The Bat-
 ‘ tle was began near *Chippenham*, or *Chip-*
 ‘ *penhane*, where the Christian King tarried
 ‘ so long in his Prayer, that the Pagans were
 ‘ first ready for Battle ; which his Brother
 ‘ *Aelfred* perceiving, and knowing that he
 ‘ must either retire, or fall upon his Ene-
 ‘ mies before his Brother came, he set upon
 ‘ them, though the Place of Battle was un-
 ‘ equal ;

' equal ; for the Pagans had gotten the higher
 ' Ground, and the Christians led their Bat-
 ' tle from the Valley. It is remarkable, that
 ' in the same Place there was only one small
 ' Thorn-tree, which had been planted from
 ' that brought over by *Joseph* of *Arima-*
 ' *thea*, near a Place designed for an Abbey
 ' to be built, as several Authors observe.
 ' About this Tree the Battles met and joined ;
 ' where, when they had a long time fought,
 ' *Hubba*, one of the Kings, five of his Earls,
 ' and many thousands of the Pagans were
 ' slain, and the others put to flight. Which
 ' Victory was attributed, by some of the
 ' Monkish Writers, to the Virtue of the Ho-
 ' ly Thorn : Believe it that please.

' A great heap of Stones was laid and cop-
 ' ped up where *Hubba* was buried, and the
 ' Place called *Hubbestow*. It was then the
 ' Custom, when any Great Man of the Pa-
 ' gans was slain in the Field of Battle, to be
 ' bury'd in the same manner. And as then
 ' the Seat of War was chiefly on that side
 ' the Country, one can hardly go a Mile
 ' without observing some *Tumulus* or Tomb
 ' of this sort. But the Christians of Note
 ' were bury'd in Monasteries ; or, as it ap-
 ' pears in a Manuscript said to be wrote by
 ' the Prior of *Bermondsey*, Nephew to King
 ' *Henry* the Second, who was afterwards Ab-
 ' bot of *Glastenbury*, when a Noble Chri-
 ' stian was overpower'd in the Field of Bat-

‘ tle, and could not be buried elsewhere, an
 ‘ Offspring of the Holy Thorn was planted
 ‘ as near the Place of his Fall as possibly
 ‘ could be guess’d.

‘ We find likewise that most of the Ab-
 ‘ beys which were set up after the same Or-
 ‘ der as that at *Glastenbury*, found some
 ‘ means to get an Offspring of the original
 ‘ Thorn from *Glastenbury*, and plant it in
 ‘ some considerable Place within their Ju-
 ‘ risdiction : So that whoever finds, in any
 ‘ History, there was a Thorn here or there
 ‘ that blossom’d on *Christmas*-Day, it was
 ‘ likely taken from the old Stock. But at
 ‘ the suppression of the Abbeyes in King *Henry*
 ‘ the Eighth’s Time, it appears by some Ma-
 ‘ nuscripts of Curiosity and Note, that these
 ‘ Thorns, among other things, tending to
 ‘ help the Romish Religion, should be de-
 ‘ stroy’d ; and therefore there are few of
 ‘ them remaining, but such as happen’d to
 ‘ be overlook’d.

‘ There is nevertheless a large one of this
 ‘ kind now at *Glastenbury*, which, by the
 ‘ traditional Account, took Root from a
 ‘ Branch of that which was cut down when
 ‘ the Abbey was suppress’d ; and it now con-
 ‘ tinues to blow every *Christmas* : To which
 ‘ Place great Numbers of People resort every
 ‘ Year at that time to observe it.

‘ This first Plant undoubtedly must have
 ‘ been renew’d many times, or propagated
 ‘ by

‘ by some means or other in the space of fif-
 ‘ teen or sixteen hundred Years. And there
 ‘ is no doubt, but all the ways of increasing
 ‘ Trees, which we now practise, were well
 ‘ enough known to the Antients; witness *Xe-*
 ‘ *nophon*, *Hesiod*, and numbers of *Greek* Au-
 ‘ thors besides, who have elegantly and ju-
 ‘ diciously mentioned several ways of Graf-
 ‘ fing, Laying, Planting by Truncheons, and
 ‘ many more Methods of encreasing Plants
 ‘ than we practise at this time, as their
 ‘ Works will shew. So *Varro*, *Pliny*, *Pa-*
 ‘ *ladius*, *Cato*, *Columella*, and *Virgil* who
 ‘ has taken from all the others, besides his
 ‘ own knowledge, have given us almost in-
 ‘ numerable Methods of increasing Plants:
 ‘ Which indisputably were known to us in
 ‘ *Britain* by means of the *Romans*, who
 ‘ were the first Gardeners of note among us,
 ‘ and brought over the first fine kinds of
 ‘ Fruits, as the Great Sir *William Temple*
 ‘ has fully proved. Then, I say, we may be
 ‘ pretty well satisfied that the People of this
 ‘ Nation, seventeen hundred Years ago, were
 ‘ not without knowledge how to plant, and
 ‘ increase Plants, as well as we do now. And
 ‘ I may add, that some Experiments have
 ‘ been lately mention’d as new, by Garde-
 ‘ ners, which I can prove to be near two
 ‘ thousand Years standing, from antient Au-
 ‘ thors, as I have said above.

‘ Before

‘ Before I conclude, I must yet observe,
 ‘ that the Remains of *Glastenbury-Abbey*
 ‘ would make as fine a Picture, as any of
 ‘ the famous *Roman* Antiquities, unless one
 ‘ was to take in *Trajan’s* Pillar, and two or
 ‘ three more Extraordinaries.

‘ Besides the great Church at *Glastenbury*,
 ‘ which was about three parts standing nine
 ‘ Years ago, there is the Abbot’s Kitchen re-
 ‘ maining, made almost in the manner of a
 ‘ modern Glass-House, with the Places for
 ‘ dressing of Meat quite round the Walls at
 ‘ the bottom, and one Passage for the Smoke
 ‘ in the middle of the top, which is built
 ‘ like a Dome or Cupola. We have likewise
 ‘ a small Chapel, not more perhaps than 20
 ‘ Feet long, dedicated to *St. Joseph*, whose
 ‘ Walls are kept up still, and where many
 ‘ Roman Catholicks pay their Devotions
 ‘ but within-side ’tis in a ruined State.
 ‘ This they say was the Chapel built by King
 ‘ *Kenulph*, as before related; though others
 ‘ say of more antient Date, and on the place
 ‘ where the first Church was built.

‘ I can say no more to you on this curious
 ‘ Subject, but that when I was last at *Glas-*
 ‘ *tenbury*, the People told me somebody had
 ‘ bought the Abbey, and had already began
 ‘ to pull it down, to make what Profit he
 ‘ could of the Stone, which he might take
 ‘ out of the Ruins, for building Cottages to
 ‘ be rented by poor People; but some in my
 ‘ Com-

‘ Company judged that ’twas very impoliti-
 ‘ tickly done, because the Ruins of that Mo-
 ‘ nastery and the Thorn, were the only Mo-
 ‘ tives to bring any Trade or Custom to the
 ‘ Place ; which otherways, by means of bad
 ‘ Roads, and no pleasant Country there-
 ‘ abouts, would never invite any one to
 ‘ come near.

‘ If these Memorandums may be of any
 ‘ Use to you, I have my desired End ; and I
 ‘ conclude,

S I R,

Your Unknown Friend,

and Servant,

M. H.

In the foregoing Letters, we find a great deal of the History of *Glastenbury*, and its Thorn ; for which I am extremely obliged to Mr. *M. H.* whose Design is so generous, and his Letters so much applauded by the curious Gentlemen who frequent my House, that I am advised to print them in this Tract, that the Story of the *Glastenbury Thorn* may be the better understood.

The Plant, as it has been scarce for a long time, has made me propagate a few for the Curious in Pots, that they may be removed at any time of the Year with safety.

I may take notice, that the Plant I have now in my Garden is near fifty Years old, being raised by Mr. *Darby*, my Predecessor, who got it originally from *Glastenbury*, tho' it is not now much more than nine Feet high; but blossoms and buds punctually at *Christmas*, as many learned Men, beside People of Quality, can witness; some of which have paid me honourably for Sprigs of it in Blossom at *Christmas* time.

This Plant, I may again observe, blossoms twice a Year, that is at *Christmas*, and even from those Blossoms ripens its Fruit; and the second time it blossoms with the other White-Thorn or *May-Bush*, in the beginning of *May*; so that 'tis common enough to see Blossoms, and ripe and green Fruit upon it at the same time: For the Fruit of the *Christmas* Blossoms ripen in *May* and *June*, and the Fruit from the Blossoms in *May* ripen about *September*.

If it came from *Judea*, as it may be supposed to do, if *Joseph* of *Arimathea* brought it as a Staff with him into *Britain*; we may consider, as one of my Correspondents observes, that at the time of our *Christmas*, the Spring in and about *Judea* is equal to our *May*; and perhaps, as my Correspondent says, it may attempt to blossom here at the time of its own natural Spring. But if we consider, that all other Plants coming from so warm a Climate as that about *Judea*, require
the

the shelter of an House in the Winter with us to keep them alive, and this does not, and yet will flower in the most severe Frost, and in the coldest Scituation, it is very admirable.

Parkinson, who was Herbarist to Queen *Elizabeth* and King *James* the First, just after the Roman Catholick Religion was suppress'd by *Henry* the Eighth, was obliged to write with Caution concerning this Plant, and drop the History of it ; because, as was observ'd in the foregoing Letter, it is said, that the Plant, as well as any thing else belonging to the Abbeyes in the way of superstitious Worship, must be abolish'd. And it may be supposed that *Parkinson* knew as well then, as People do since, that it was not necessary at all times to aggravate on such an Occasion ; and therefore in a tender manner tells us, that this Plant grows at *Glastenbury-Abbey*, and at some other Places, well known to the People where they grow, though not in every Place esteemed. But he adds, that he thinks they ought not to be so slightly pass'd over, or so smally respected ; for he supposed it a strange Work of Nature, or of the God of Nature rather, to cause such a Tree, being in all parts like unto the common Haw-Thorn, to blossom twice every Year ; the one time in May, as all others of the

K

Kind

Kind do, and the other about Christmas. It beareth also after these Flowers are past green Berries, even in the Winter, before any green Leaves do appear, or Blossoms in May; so that it will have both green Fruit and ripe at the same time upon the Tree. There hath not been observed any other Difference between this Kind and the ordinary Haw-Thorn. It has been disputed that this happens by means of some Hot Springs that take their course about the Roots of the Tree; but being wisely scann'd and consider'd, is too light, I think, to hold Weight. For how should one Tree only blossom in a Place, and none of all the other Trees in the same Tract or Compass of the same Spring's running? And besides this, there are of these Trees in divers Places of the Land, and upon Moorish Ground, though upon a Bank beaten with cold and northerly Blasts, and exposed to furious Winds on all sides, having no Shelter or Defence, but standing in a flat and open Soil, where I think no hot Spring either doth, or is likely to break forth or run near it.

Let the Wise and Judicious scan it thoroughly, Whether this come to pass by the Nature of the Soil and Springs, or the natural Kind of the Tree, &c.

As I have now presented my Reader with the most material Remarks concerning *Glastenbury*, and its Thorn, I shall conclude this Treatise, with the Hopes that there is nothing in it which will not be well received by the Curious.

F I N I S.



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